

# STATE OF TEXAS

## **2009/2010 MODEL AUTOMOBILES AND TRUCKS**

**TEXAS SPECIFICATION NO.  
071-072-AT-2009/2010**

Comptroller of Public Accounts  
Central Procurement Services  
1711 San Jacinto Boulevard  
P.O. Box 13047  
Austin, TX 78701-3047

# **SPECIFICATION FOR 2009/2010 YEAR MODEL AUTOMOBILES AND TRUCKS**

## **SECTION A – GENERAL INFORMATION, REQUIREMENTS, AND CONDITIONS:**

**A.1. SCOPE:** This specification describes the majority of automobile and truck categories required by the various agencies and political subdivisions of the State of Texas. Tables of minimum requirements for each category automobile and truck covered by this specification are included. Specifications pertaining to the make and model of the automobile or truck available from the various manufacturers are included in the tables.

**A.2. DEFINITIONS AND ABBREVIATIONS:** The following definitions and abbreviations are used throughout this specification:

- 2.1. **ASTM:** American Society for Testing and Materials.
- 2.2. **BCI:** Battery Council International.
- 2.3. **CFR:** United States Code of Federal Regulations.
- 2.4. **COMMISSION OR CPA:** (Comptroller of Public Accounts.)
- 2.5. **DOT:** United States Department of Transportation.
- 2.6. **DPS:** Texas Department of Public Safety.
- 2.7. **EPA:** United States Environmental Protection Agency.
- 2.8. **FMVSS:** United States Federal Motor Vehicle Safety Standards.
- 2.9. **IFB:** Invitation for Bids.
- 2.10. **MANUFACTURER:** A fabricator of automobile trucks, bodies, chassis, or components.
- 2.11. **MSO:** Manufacturer's Statement of Origin
- 2.12. **NTEA:** National Truck Equipment Association.
- 2.13. **NGV:** Natural Gas Vehicle.
- 2.14. **OEM:** Original Equipment Manufacturer:
- 2.15. **OSHA:** United States Occupational Safety and Health Administration.
- 2.16. **SAE:** Society of Automotive Engineers.
- 2.17. **VENDOR:** A manufacturer's representative or dealer authorized to make sales and supply parts and service in Texas.
- 2.18. **CPA:** Comptroller of Public Accounts, Purchasing Division, PO Box 3047, Austin, Texas 78711-3047

## **A.3. APPLICABLE SPECIFICATIONS, STANDARDS, RULES, AND REGULATIONS:**

- 3.1 **EXHAUST EMISSION STANDARDS:** Vehicles furnished to this specification shall meet the applicable requirements of the EPA's Exhaust Emission Standards (40 CFR 85, 86, and 88) and all revisions as issued under authority of the Clean Air Act, current version.
- 3.2 **FEDERAL MOTOR VEHICLE SAFETY STANDARDS (PUBLIC LAW 89-563):** Automobiles and trucks shall meet or exceed the minimum requirements of this specification and all applicable requirements of the FMVSS. All requirements of this specification shall be met unless they are in conflict with the applicable FMVSS.
- 3.3 **HORSEPOWER AND WHEELBASE LIMITATIONS (Section 2158.003, Texas Government Code, title 10. Formerly Section 3.29, Art. 601b, VTCS):** "A state agency/entity may not purchase or lease a vehicle designed or used primarily for the transportation of persons, including a station wagon that has a

wheelbase longer than 113 inches or that has more than 160 SAE net horsepower, except that the vehicle may have a wheelbase of up to 116 inches or SAE net horsepower of up to 280 if the vehicles will be converted so that it is capable of using compressed natural gas or another alternative fuel...”  
“The wheelbase and horsepower limitations prescribed by this subsection do not apply to the purchase or lease of a vehicle to be used primarily for criminal law enforcement or a bus, motorcycle, pickup, van, truck, three-wheel vehicle, tractor or ambulance.”

- 3.4 TEXAS MOTOR VEHICLE DIVISION CODE :** “. . . any entity or person that manufactures, distributes, converts new motor vehicles (or represents any entity that manufactures, distributes, or converts new motor vehicles) or is in the business of buying, exchanging, or selling new motor vehicles is required to be licensed by the Motor Vehicle Division of the Texas Department of Transportation (TxDOT).
- 3.5 OTHER SPECIFICATIONS AND STANDARDS:** Reference to specifications, standards and test methods shall be to those in effect on the date of the Invitation for Bid. The following publications form a part of this specification to the extent that they meet all of OSHA’s requirements and others as specified herein:
- 3.5.1 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM),** 1916 Race Street, Philadelphia, Pennsylvania 19103:
- 3.5.1.1 ASTM A 606** – Standard Specification for Steel Sheet and Strip, Hot-Rolled and Cold-Rolled, High Strength, Low-Alloy, with Improved Corrosion Resistance.
- 3.5.2 NATIONAL TRUCK EQUIPMENT ASSOCIATION (NTEA),** 25900 Greenfield Rd. #410, Oak Park, Michigan:
- 3.5.2.1 NTEA** – Hydraulic Conversion Hoist Classification Charts.
- 3.5.3 SOCIETY OF AUTOMOTIVE ENGINEERS (SAE),** 400 Commonwealth Drive, Warrendale, Pennsylvania 159096:
- 3.5.3.1 SAE J377** – Standard for Performance of Vehicle Traffic Horns.
- 3.5.3.2 SAE J544b** – Recommended Practice for Starting Motor and Generator Curves.
- 3.5.3.3 SAE J551/12** – Vehicle Electromagnetic/Interference (EMI/RF) March, 1994 or latest revision.
- 3.5.4 SUPERINTENDENT OF DOCUMENTS,** U.S. Government Printing Office, Washington, D.C. 20402:
- 3.5.4.1 CFR, Title 40, Part 85** – Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines, Environmental Protection Agency.
- 3.5.4.2 DOT, Title 49, Part 393** – Liquid Fuel Systems of Commercial Motor Vehicles, Certification of Fuel Tank.
- 3.5.4.3 FMVSS (Public Law 89-563):**
- 3.5.4.3.1 FMVSS No. 108** – Lamps, Reflective Devices and Associated Equipment.
- 3.5.4.3.2 FMVSS No. 209** – Seat Belt Assemblies for Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses.
- 3.5.4.3.3 FMVSS No. 210** – Seat Belt Assembly Anchorages – Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses.
- 3.5.4.3.4 FMVSS No. 301** – Fuel System Integrity.
- 3.5.4.4 FEDERAL STANDARDS:**
- 3.5.4.4.1 No. 595a** – Colors.
- 3.5.4.4.2 No. TT-C-5208** – Coating Compound, Bituminous, Solvent Type, Underbody (for Motor Vehicles).
- 3.5.4.5 U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA):**

**3.5.4.5.1 Construction Safety and Health Regulations, Section 1926.601 – Motor Vehicles.**

**3.6 STATE OF TEXAS:**

- 3.6.1 COMPTROLLER OF PUBLIC ACCOUNTS (CPA),** Purchasing Division, P.O. Box 13047, Austin, Texas 78711-3047:
  - 3.6.1.1 Texas Specification No. 055-20-01 –** Gasoline to Compressed Natural Gas Conversion Systems (current edition). [http://www.CPA.state.tx.us/spec\\_lib/numeric.html](http://www.CPA.state.tx.us/spec_lib/numeric.html)
  - 3.6.1.2 Texas Specification No. 055-20-02 –** Gasoline to Liquefied Petroleum Gas Conversion Systems (current edition). [http://www.CPA.state.tx.us/spec\\_lib/numeric.html](http://www.CPA.state.tx.us/spec_lib/numeric.html)
- 3.6.2 RAILROAD COMMISSION OF TEXAS (RRC),** Liquefied Petroleum Gas Division, P.O. Box 12967, Austin, Texas 78711-2967:
  - 3.6.2.1 Regulations for Compressed Natural Gas (current edition).**
  - 3.6.2.2 Safety Rules: Liquefied Petroleum Gas Division (current edition).**
- 3.6.3 TRANSPORTATION CODE:** Uniform Act Regulating Traffic on Highways.  
<http://www.capitol.state.tx.us/statutes/tn.toc.htm>
- 3.6.4 TEXAS OCCUPATIONS CODE: Title 14 Chapter 2301**  
<http://www.capitol.state.tx.us/statutes/oc.toc.htm>

**A.4. GENERAL INFORMATION AND REQUIREMENTS:**

- 4.1. ACCESSORIES, REQUIRED AND OPTIONAL:** Unless otherwise specified in the Invitation for Bid, vehicle manufacturer's standard advertised/published accessories and other options shall be chassis-factory installed, on all vehicles except medium-duty cab and chassis units, but including light-duty cab and chassis units. An individual option shall be factory installed whether the option is available separately, or as part of an option package. When only provided as part of an option package, all package items, including the individual option shall be provided. Vehicle manufacturer's standard advertised/published accessories for medium-duty cab and chassis units shall be chassis-factory installed. Requested optional equipment on medium-duty cab and chassis units shall be furnished and installed by the chassis manufacturer (if available) or they shall be furnished and installed by dealer or other manufacturers, provided all specified minimum requirements are met.
- 4.2. BATTERIES:** OEM Standard Batteries required.
- 4.3. COMPARABLY EQUIPPED VEHICLES:** An attempt has been made to ensure that manufacturer's models in each Series are furnished with comparable equipment (whether optional or standard as provided by the manufacturer). Any imbalance in the requirements for a listed series, i.e., an item that is an optional accessory for one brand and standard on another, should be called to the attention of the Purchasing Division immediately.
- 4.4. DEALER BODY/COMPONENT REQUIREMENTS:** Dealer to submit manufacturer's current, regularly published literature on the body, toolbox, and other aftermarket components offered. Literature shall be sufficiently detailed to permit CPA or the ordering entity to determine if the items offered meet specified requirements.

If the bodies/components are discontinued by the manufacturer or become otherwise unavailable, dealer shall submit literature on proposed alternate(s) for CPA or the ordering entity's approval.

Apparent low bidder shall (within 3 business days of request) furnish CPA or the ordering entity written verification that the selected up fitter has read, understands, and will comply with all specification requirements, including delivery timelines. The verification shall be signed by a representative of the selected up fitter. Vendor shall submit written verification from any additional or alternate up fitter(s) to be used under the contract.
- 4.5. EQUIPMENT MOUNTING:** No equipment mounted on state of Texas trucks shall, under any

circumstances, be welded to the vehicle frame at any point between the front of the front spring hanger and the rear of the rear spring hanger. Also, all holes for bolting must be drilled in the accepted manner and the burning of said holes shall not be acceptable under any condition. Further, no holes shall be drilled in top or bottom flange of truck frame unless drilling is confined to the section behind the rearmost attachment of the rear spring hangers or for pre-formed factory-made frame rail bolt holes for subsequent body installation. Welding or torch cutting shall be confined to "boxing" the rear end of truck frame (as required for dump equipment to allow full dumping angle). All such work shall be confined to area behind rear spring hangers. Mounting strip between hoist sub-frame of dump body and truck frame may have flame cut holes to countersunk rivets on truck frame. Chassis frame rivets shall not be removed or cut flush with frame for any reason. Any mounting of aftermarket bodies or equipment may require special wheelbase and cab/axle dimensions to achieve correct weight distribution. Dimensions will be verified by ordering entity's and/or CPA, and aftermarket vendor to accommodate intended use of vehicle." All mounting of special after-market equipment shall meet manufacture's installation requirements and all state and federal standards.

- 4.6. SAFETY PLAQUES OR DECALS:** Safety plaques or decals shall be furnished on vehicles and bodies, and shall be affixed at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size and locations of product safety plaques or decals shall be in accordance with ANSI 535.4-1995, or latest revision thereto.
- 4.7. LAMPS, SIGNALS, AND REFLECTORS (SERIES 650 THROUGH 990):** Reflectors and clearance, side-marker and identification lamps for Series 650 through 990 vehicles shall also meet the following requirements: Reflectors must be housed type with screw or bolt type mounting; stick-on type is not acceptable. Surface-mounted clearance and side-marker lamps shall be metal armored type. Recess-mounted side marker and clearance lamps must be recessed sufficiently to provide protection for the lens. Lenses for side-marker and clearance lamps shall be secured to the lamp by a fastening method which required a tool to remove the lens.
- 4.8. LICENSE PLATE ATTACHMENT:** Each vehicle, except cab and chassis units, shall be furnished with means and adequate space for attaching the rear license plate without modification. Illumination provided for the license plate shall be in compliance with Texas motor vehicle laws.
- 4.9. LOGOS AND DECALS:** Do not place decals or markings of any type pertaining to advertisement other than manufacturer's name or model designation normally installed by manufacturer on equipment delivered to any state agency or entity.
- 4.10. MANUALS:** Each awarded vendor will include in each vehicle an owner's or operator's manual. This will include all standard manufacturer/vendor literature normally furnished and as required by law with the purchase of a new vehicle.
- 4.11. MUD FLAPS:** See (Section C.8.a.3) for mud flaps prescribed by law.
- 4.12. NEW MODELS:** The vehicles furnished under this specification shall be the latest production model and shall be of good quality workmanship and material. The bidder represents that all units offered under this specification shall meet or exceed the minimum requirements specified for each vehicle Series listed.
- 4.13. ODOMETER STATEMENT:** The Truth in Mileage Act requires the selling dealer to furnish a complete odometer statement to the purchaser. This statement must be complete and shall include mileage accrued at the point of delivery. In addition to the signature of the seller/agent certifying the odometer reading, both the dealership and the name of the agent shall be printed on the Odometer Disclosure Statement. The odometer statement on the MSO will satisfy this requirement.  
**NOTE:** ODOMETER STATEMENT IS NOT REQUIRED ON TRUCKS WITH A GROSS VEHICLE WEIGHT RATING OF 16,000 POUNDS OR MORE.
- 4.14. SERVICING AND EQUIPPING:** Awarded vendor(s) shall furnish automobiles and trucks meeting or exceeding the minimum requirements in the appropriate Series table and equipped exactly as listed for makes and models in the various tables of this specification and with any other requirements specified

in the Invitation for Bid. The vehicles shall be completely assembled, serviced, adjusted, and all equipment including standard and optional equipment shall be installed and the units made ready for continuous operation. If vehicles are delivered not made ready for continuous operation, it will be the vendor's responsibility to have the units made ready for continuous operation prior to acceptance. It shall not be the ordering entity's responsibility to arrange for the units to be made ready, including transporting units to local dealership for warranty repairs prior to acceptance. Standard equipment means those components and accessories usually and ordinarily furnished without additional cost on regular production models.

- 4.15. SPEEDOMETER:** Each vehicle shall be equipped with a speedometer having an odometer as an integral part. The speedometer drive mechanism must be properly calibrated in relation to each axle ratio and tire size to give accurate readings.
- 4.16. TIRES:** All tires shall be new and the tread style shall be the tire manufacturer's standard design and the brand normally furnished on regular production orders, unless otherwise specified in the Invitation for Bid. All tires shall be "ORIGINAL EQUIPMENT LINE" quality **and have not less than a "B" heat rating.**
- NOTE:** UNLESS OTHERWISE SPECIFIED IN THE INVITATION FOR BID, RAISED WHITE LETTERS ARE NOT ACCEPTABLE ON LIGHT-DUTY TRUCK AND TRUCK TYPE TIRES. VEHICLES EQUIPPED WITH RH5 DEGREE MULTIPLE PIECE CENTER-LOCKING RIMS ARE NOT ACCEPTABLE.
- 4.17. WIRING:** With the exception of factory-installed wiring, all electrical wiring shall be insulated and enclosed in a fibrous loom, plastic loom, or flexible conduit for protection from external damage and short circuits. It shall be securely fastened at sufficient intervals to prevent sagging and to ensure clearance of mechanical parts. Routing of the wiring through the cab, frame, body, compartment box, and the like shall be placed in such a manner so as not to interfere with normal operation and use, or present a safety hazard. Rubber grommets shall be used wherever wires, hoses or harness pass through metal. (Refer to Section F.4.6 for the wiring requirements for dump bodies.)
- 4.18. SAFETY NOTICES AND RECALLS:** All safety notices and recalls shall be mailed to the entity address designated on the purchase order for the destination of goods.
- 4.19. FLEET NUMBERS:** The assignment of manufacturer's fleet numbers to ordering agencies shall be the sole responsibility of the awarded vendor(s).
- 4.20. TAX, TITLE, AND LICENSE:** Agencies that do not qualify for exempt license plates and/or are classified as a non-profit organization will be responsible for any applicable tax, title, and license fees, in addition to vehicle contract price. **All vehicle contract prices exclude tax, title, and license.** It shall be the responsibility of the entity/organization to inform the vendor(s) of their status as non-exempt and/or non-profit, so that vendor(s) may collect applicable taxes and fees, and process any required licensing and titling applications. Non-exempt agencies and/or non-profit organizations shall direct any questions concerning applicable tax, title, and license fees to their appropriate County Tax Assessor/Collector Office. Questions concerning taxes may also be directed to the Texas Comptroller of Public Accounts at 1-800-252-1382.
- 4.21. EPA EMISSION LEVEL:** Bidders must indicate on their response the EPA emission level of the engine and engine family, for each vehicle they bid. Alternate engines, with an emission level different from that originally quoted, must have prior approval of the ordering entity. Emission level changes to vehicles on state contract require prior written approval of the CPA and will be documented through an addendum to the specification and changed in the automated contract. This information is published by the OEM and is required for the State's "Fleet Anywhere" program. It will not effect any bid.
- 4.22. E85 FLEX FUEL ENGINES:** **All vehicles are to be delivered with E85 Flex fuel engines if available from OEM at no additional cost to dealers. Option No. 51 deletes the E85 Fuel package.**

## **A.5. CERTIFICATION, COMPLIANCE, AND MANUFACTURER BUILD-OUT/ORDER DEADLINES:**

### **5.1. DELIVERY TIME FRAMES:**

#### **120 days**

General Purpose Automobiles  
Carryalls, Utility Vehicles, Cargo Vans  
Passenger Vans, Light Duty  
Light Duty and Crew Cab Trucks  
Light- and Medium-Duty Chassis w/No Bodies

#### **150 Days**

Special Purpose Automobiles (LE)  
OEM Alternative Fuel Vehicles

#### **180 Days**

Light- and Medium-Duty  
Chassis with Optional Bodies

Extensions of delivery may be granted on a case by case basis by the ordering entity, **upon written request by awarded vendor(s)**. Written requests for delivery extensions **shall include** ordering entity requisition/ purchase order number(s), **reason for extension, and time frame in number of days** needed for extension, and must precede the late delivery of the vehicle.

**LATE DELIVERY FEE:** The ordering entity will have the option to charge the vendor a fee of \$50 per vehicle per day for late delivery. Late fee applies **ONLY** when vendor has not requested and received **PRIOR WRITTEN** approval from the ordering entity, to make delivery after the number of days established by the contract or the purchase.

**NOTE:** Providing vehicle(s) which do not meet all specification requirements does not constitute delivery, and the late fee will continue to accrue until the vendor delivers vehicles in full compliance with the specifications to the ordering entity's FOB point.

The ordering entity will have the option to deduct any accumulated late delivery fees prior to payment of the invoice.

**VENDOR RETRIEVAL OF VEHICLES:** Vendor shall remove noncompliant vehicle(s) from ordering entity premises within 5 working days after receiving written notification from the ordering entity. If vehicle is not removed by vendor within the 5 working days time frame, ordering entity may arrange for vehicle to be removed and secured by a local towing and storage facility. Vendor will be responsible for payment of all related towing and storage charges. Ordering entity will not be responsible or liable for damage or loss of noncompliant vehicles which remain on ordering entity premises, or which are removed by towing company, 5 working days after vendor notification.

**VENDOR PERFORMANCE:** Late delivery without pre-approval or delivery of vehicles that do not meet specifications may result in submission of negative vendor performance reports to CPA.

**5.2. SUBMITTAL OF LITERATURE:** Bidder(s) should submit with their bids, or have on file with the CPA, the latest printed literature on equipment the bidder proposes to furnish. This literature shall include an engine chart showing SAE gross horsepower, SAE gross torque rating, and other operating characteristics.

**5.3. SUBMITTAL OF MANUFACTURER BUILD-OUT/ORDER DEADLINES:** Awarded vendor(s) shall furnish CPA with order deadlines in writing by vehicle series number a minimum of three weeks prior to deadline. Order deadlines not designated by series number will not be accepted. Awarded vendor(s) shall be responsible for fulfilling all purchase orders issued pertaining to each series in which a deadline has not been provided in accordance with the above requirements. Only one order deadline will be permitted for each vehicle series.

Model year build out order deadline will be posted on each contract item as they become available. After model year build out deadline, "in stock" vehicles may be available through the contract from the awarded contract vendors. Agencies should contact the awarded contract vendor for availability and delivery.

**5.4. STATE OF TEXAS VEHICLE DELIVERY DATA SHEET:** At delivery, the awarded vendor (s) shall

provide with each vehicle a State of Texas Vehicle Delivery Data Sheet to include the following information. Additional information may be added during the life of the contract.

**SUMMARY:** Purchase Order Number, Requisition Number, delivery date, purchase cost, odometer ready at delivery, warranty expiration (date & miles or delayed).

**IDENTIFICATION:** Vehicle Identification Number (VIN), year, make, model.

**READINGS:** meter type (miles or hours), primary fuel type, secondary fuel type, fuel capacity (with units), engine oil capacity (with units), and transmission fluid capacity (with units).

**RATINGS:** Gross Vehicle Weight Rating (GVWR), Vehicle Emissions Rating (VER), EPA Miles per Gallon (MPG) Rating, Engine Family Code.

**SPECIFICATIONS:** Number of tires, tire size, wheelbase, transmission type (manual or automatic), drive type (2-wheel, 4-wheel, etc), engine size, number of cylinders.

#### **A.6. INSPECTION:**

- 6.1. VEHICLE INSPECTION:** The vendor shall have each vehicle (except cab and chassis units delivered without bodies) properly inspected in compliance with Texas motor vehicle laws. Texas Inspection Sticker shall be attached prior to delivery to the receiving entity (2 year Inspection Sticker for vehicles through ¾ ton pickups and 1 year Inspection Sticker for 1 ton trucks and up, excluding cab and chassis units delivered without bodies).
- 6.2. ENTITY CHECK-IN INSPECTION:** Receiving entity should check the vehicle upon delivery to ensure compliance with this specification and any other specific requirements. The vendor shall deliver with the vehicle a vehicle-specific line-setting ticket, manufacturer's invoice, and MSO or any official documentation to verify the fact that ordered options, GVWR rating, and other requirements have been met.
  - 6.2.1.** Failure to provide information in 6.2 may cause the delay of entity-processing of payment. Payment will be made within 30 days after vehicle's acceptance or receipt of correct invoice, whichever is later. Acceptance will not be made, nor payment initiated on vehicles failing to meet specifications (unless they are brought into full compliance), and all necessary documents (i.e. MSO, odometer statement, etc.) are received by the ordering entity.
  - 6.2.2.** Unless otherwise specified in the Invitation for Bid, agencies are permitted a maximum of 5 working days to complete this inspection.
  - 6.2.3.** Pre-acceptance sample checklists for new vehicles are available in Section K, page 143 and 144 of this specification.

#### **A.7. INTENT OF SPECIFICATIONS:**

- 7.1. GENERAL:** The vehicles covered by this specification are categorized into eight general classifications. Each classification is further divided into sub-classifications, which are specifically identified by generic title and description and by an assigned vehicle Series number. For example, **Series 360B** represents a 4-door intermediate sedan under the classification of "General Purpose Automobiles" as categorized by the state. The table of each vehicle Series contains the make, model, and other specifications for each vehicle submitted by manufacturers for sale to the state of Texas. It should be understood that vehicles listed as "Full Size" are not acceptable as "Intermediate" automobiles. It should also be further understood that any vehicles bid which fail to meet the minimum requirements of the Series number will not be considered for purchase. The purpose of listing vehicles in a given Series is so that the user will have the information necessary to match requirements with available vehicles. However, the fact that a vehicle is not listed in a given Series will not preclude its being purchased by the state of Texas, provided that (1) it is determined to be the lowest and best bid, (2) it meets the minimum requirements of the Series number by which the state classifies vehicles, and (3) it is approved by the CPA. The examples in Paragraphs 7.2 through 7.5 will clarify the intent of these specifications.



- 7.2. **ENGINE SUBSTITUTION:** For Open Market Invitation for Bids (IFB), if the state requests bids on a Small Utility Category Vehicle listed in Series 661B (which requires a 6-cylinder engine), a vehicle listed in this table but having an 8-cylinder engine would not be acceptable. It is assumed that the using entity requires a 6-cylinder engine unless it is stated on the IFB that an 8-cylinder engine would be acceptable.
- 7.3. **EXCEEDING SPECIFICATIONS:** Vendor(s) may exceed specifications only when the ordering entity requests or agrees to the vendor providing heavier components.
- 7.4. **MODEL SUBSTITUTION:** If the state requests bids for a Series 861C, ½ Ton Pickup, for example, then a ¾ Ton Pickup normally purchased under Series 867C will not be acceptable.

**A.8. MANUFACTURER'S STATEMENT OF ORIGIN (MSO):** Awarded vendor(s) shall furnish the receiving entity a MSO (Certificate of Title will not meet this requirement). MSO shall either be furnished at the time of vehicle delivery or within 48 hours of vehicle delivery to the receiving entity and shall be made out in the name of the individual entity (see NOTE below), providing the following:

**NOTE:** Vendor should contact the ordering entity to obtain proper Entity name and address for assignment of the MSO.

- 8.1. GVWR for the particular model specified, or;
- 8.2. The GVWR required for the entity's written exception, or;
- 8.3. A greater GVWR required by extra equipment, and;
- 8.4. Nominal weight rating (in tons),
- 8.5. Odometer Disclosure Statement.

**A.9. PRE-DELIVERY SERVICE:** All units (including complete vehicles and cab and chassis units) shall include new vehicle pre-delivery service.

- 9.1. The following service shall be performed before the units are delivered to the receiving entity:
  - 9.1.1. All fluid levels checked and maintained with the proper grade and type of fluids.
  - 9.1.2. Pre-delivery inspection and service on chassis.
  - 9.1.3. The interior and exterior of units shall be clean and freshly washed at time of delivery.
  - 9.1.4. A minimum of 1/4 tank must show on the fuel gauge when delivered.
- 9.2. When so specified in the Invitation for Bid, the awarded vendor(s) or their representative who is responsible for the final delivery shall attach signed certificates to the units stating that the above service was performed and that inspection indicates they are in good condition and ready for delivery.
- 9.3. Unless specifically permitted by the ordering entity, vehicles shall be equipped with all accessories as stated in the purchase order prior to delivery. Generally, the unfitting or servicing of ordered vehicles on the premises of the ordering entity is not permitted.
- 9.4. All shipping tickets shall reference the applicable entity requisition/purchase order number(s) and will accompany each delivery shipment. If shipping tickets are received without applicable entity requisition/purchase order number(s), delivery may be rejected at entity's option.
- 9.5. Window sticker shall remain attached to the vehicle.

**A.10. VENDOR DELIVERIES:**

Vendor shall prevent undue delay or imposition upon state personnel at the time of delivery. Agencies will not provide equipment (crane, winch, etc.) or assistance for unsaddling piggybacked chassis, off-loading convoyed units, or other delivery processes.

#### **A.11. TRADE-IN(S):**

- 11.1 CONDITION OF TRADE-IN(S):** If there is a trade-in, it is offered at the state's option, "where is and as is," and the awarded vendor must take possession at the location listed and remove the trade-in from state premises within 30 days from delivery date of new equipment.
- 11.2 TRADE-IN WARRANTY:** Trade-in option is not available on contract purchases. The state of Texas makes, and the bidder(s) shall rely on, no representation or warranty whatsoever about the condition of the trade-ins listed, either expressed or implied, and no agent or employee of the state of Texas is authorized to make any representation or warranty as to the trade-ins. The purchaser shall have no claim against the state of Texas for any defect or other condition of the trade-ins. Bidder(s) are, therefore, urged to inspect trade-ins. Failure to do so, however, shall not impair or affect any of the terms of this agreement.

#### **A.12. WARRANTY, SERVICE, AND SERVICE CONTRACTS:**

- 12.1 WARRANTIES, ACCESSORIES:** The awarded vendor(s) shall furnish a copy of the manufacturer's standard warranty on major accessories such as Dump, Stake, Platform and Utility Bodies, side-mounted tool compartments and tool boxes at the time of delivery to the receiving entity.
- 12.2 WARRANTIES, NEW VEHICLE:** The awarded vendor(s) shall furnish the receiving entity a New Vehicle and/or chassis manufacturers Warranty which will be honored by any of the manufacturer's authorized dealers. This warranty shall be comparable to or better than those offered to the general public. Passenger cars and light-duty trucks shall have a minimum warranty offered to the general public (not commercial trade).
- Bidder shall indicate the length (in years and miles) of the OEM new vehicle warranty on each of their responses to bids based on this specification. Vendor shall furnish a complete copy (detailing coverage and exclusions) of the new vehicle warranty to agencies with each vehicle delivered. Vendor shall also provide an additional copy within 10 working days after request.
- 12.3 WARRANTIES, DEDUCTIBLES:** All warranty repairs shall be performed without accessing the ordering entity warranty deductibles. Awarded vendor(s) shall be responsible for any warranty deductibles required for warranty repairs.
- 12.4 WARRANTIES, DELAYED:** Delayed warranties must be available for all vehicles. Warranty start date shall be effective the day the completed unit is placed into service. Vendor shall furnish a delayed warranty card/document with each unit delivered, advising entity personnel of the procedures to be followed for obtaining delayed start of warranty coverage. Requests for delayed warranties will not exceed 6 months after delivery.
- NOTE:** If vendor fails to arrange for delayed warranty with OEM, vendor is responsible for all costs incurred to make appropriate repairs at any dealership in Texas, for up to 6 additional months.
- 12.5 WARRANTIES, DEALER INSTALLED ITEMS:** Awarded vendor (s) shall warrant all dealer installed items for quality and workmanship. Warranty shall include 100% coverage for all options, components and labor.
- 12.6 Warranties, Alternative Fuel Conversion:** With an after market fuel conversion, the company completing the conversion shall be responsible for fuel control issues/problems. If the maintenance program is followed and maintenance is performed by a technician or company licensed by the Railroad Commission (RRC), is certified by the Environmental Protection Agency (EPA), and has at least one ASE certified technician, the conversion shall be warranted for 3 years/36,000 miles, and which ever comes first.
- Alternative fuel prepped engine shall be provided when available.
- (The conversion shall not void any other warranty. The vehicle manufacturer shall be responsible for warranty except for alternative fuel components. The warranty will be honored by any OEM or ASE certified repair facility.)

## **B – ORDERING INFORMATION AND PURCHASE ORDERS:**

**NOTE:** VAN AND PICKUP CAPACITIES ARE LISTED BY NOMINAL TON OR GROSS VEHICLE WEIGHT RATING. USE OF THE LIGHT AND MEDIUM DUTY TRUCK CLASSIFICATION IS USED TO DISTINGUISH BETWEEN PICKUPS AND THE NEXT LARGER CLASS OF TRUCK UNITS.

**B.1. GENERAL:** Each category of vehicle regularly purchased by state agencies has been assigned a Series number. Truck models are specified to produce well-balanced units for each size shown. If an entity needs a vehicle not covered by one of the numbered Series, an Open Market Requisition is required and detailed specifications for the vehicle required must be shown on the requisition. If a requirement varies from the specification stated for a numbered Series, the Series number should be shown and then the desired change listed.

**B.2. FREIGHT:** All units to be F.O.B. destination, freight prepaid and allowed.

**B.3. PREPARATION OF THE REQUISITION:** When ordering automobiles and trucks to this specification, the requisition should be prepared in accordance with the “Example of Vehicle Purchase & Requisition Format” shown below and should include the following:

- 3.1. The Series number(s) and quantity for each series.
- 3.2. If ordering optional equipment, list the desired option equipment number in Section E. and a brief description of each option for each Series vehicle ordered.
- 3.3. If a trade-in is offered, the information required for each trade-in must be shown on the Sample Requisition below. Complete a copy of the “Inspection of Motor Vehicle Equipment” form shown on page 10 and attach to requisition where a trade-in is offered (one form is required for each trade-in offered)

**NOTE:** The option of a Trade-In is NOT available on Term Contract acquisitions. A Trade-In is available through Open Market acquisitions.

## FOR OPEN MARKET REQUISITIONS

### EXAMPLE OF VEHICLE PURCHASE AND REQUISITION FORMAT:

If an entity intends to purchase a standard full size 4-door sedan with a spotlight and desires to trade in a 2000 model Ford, the requisition format should read as follows:

Item #	Description and Specifications	Quantity	Unit
1.	Latest model <b>Series 374C</b> , 4-door, rear wheel drive, 8-cylinder full size Sedan, meeting the requirements of Texas Specification No. 070-AT-2006/2007, with the following options:	1	Each
	Option No. 111 – Spotlight, permanent mount		
	Less the following trade-in at the state's option, "where is and as is":		
	2000 Ford 2-door Sedan	1	Each
	License Number: AEC-31		
	Serial Number: B101345689		
	Equipment Number: 114		
	May be seen at: 125 No. East Ave., West, Texas		
	Contact: Yancy Zimmerman, (555) 555-5551		Net Difference

**B.4. PURCHASE ORDERS AND CHANGES:** Awarded vendor(s) shall furnish only vehicles meeting the requirements of Texas Specification No. 071-072-AT-2009/2010, as designated in each CPA issued purchase order. Purchase orders may not be amended without prior written approval of the CPA.

**B.5 SERVICE MANUALS:** Shop manuals and other publications may be ordered from the following:

**INFORMATION ORDERS:**

<b>Chevrolet Pontiac Buick GMC</b>	Helm, Inc. Service Publications P. O. Box 07130 Detroit, MI 48207 Phone: 1-800-551-4123
<b>Chrysler Dodge Jeep</b>	Chrysler Motors Publication (800-890-4038) Tech Authority, <a href="http://www.techauthority.com">www.techauthority.com</a>
<b>Ford</b>	Helm, Inc. Services Publications P.O. Box 07150 Detroit, MI 48207 Phone: 1-800-782-4356 <a href="http://www.helminc.com">www.helminc.com</a>
<b>Honda</b>	Helm, Inc. Services Publications 14310 Hamilton Ave. Highland Park, MI 48203 Phone: 1-800-782-4356 Fax Order: 313-865-5927 <a href="http://www.helminc.com">www.helminc.com</a>
<b>Nissan</b>	Nissan North America, Inc. Attn: Fleet Department PO Box 685001, Franklin, TN 37201-1800 FAX: 615-725-6234
<b>Navistar</b>	Publications 4201 Winfield Road Warrenville, IL 60555 Phone: 630-313-7507 Fax: 630-753-6589
<b>Freightliner</b>	Freightliner LLC c/o Publications P.O. Box 3849 Portland, OR 97208
<b>Toyota</b>	Toyota <a href="http://techonfo.toyota.com/public/banner/banner.html">http://techonfo.toyota.com/public/banner/banner.html</a>

**B.6. NATIONAL FLEET CONTACT:**

**NOTE TO USING ENTITIES:** The selling dealer shall be the first contact to resolve problems on new deliveries. Contact a local dealer for service after the sale.

Manufacturer	Phone Number	E-Mail
Ford Motor Company (Craig Fetty)	800-343-5338 (303-522-5753)	<a href="mailto:cfetty@ford.com">cfetty@ford.com</a>
General Motors (Jerry Meyer)	214-316-9580 or 1800Fleetop	<a href="mailto:jerry.meyer@gm.com">jerry.meyer@gm.com</a>
Chrysler LLC (Peter Kash)	800-999-fleet (469-374-4049)	<a href="mailto:pak12@chrysler.com">pak12@chrysler.com</a>
Nissan (Bob Topor)	714-633-6444	<a href="mailto:pzini@ancira.com">mailto:pzini@ancira.com</a> <a href="mailto:bob.toper@nissan-usa.com">bob.toper@nissan-usa.com</a>
Toyota (Paul Zini)	800-933-3416/ 210-289-1770	<a href="mailto:pzini@ancira.com">pzini@ancira.com</a>

**B.7. INSPECTION CHECKLISTS SAMPLES FOR NEW VEHICLES:** Pre-acceptance sample checklists for new vehicles are available from the CPA web site.

**B.8. INSPECTION CHECKLISTS FOR TRADE-IN(S):**

**INSPECTION OF MOTOR VEHICLE EQUIPMENT:**  
**(For Use in Trade-In or Sale)**

**NOTE:** The option of a Trade-In is NOT available on Term Contract acquisitions.  
A Trade-In is available through Open Market acquisitions.

YEAR	ENTITY		
\$			
CONDITION OF:			
ENGINE	BATTERY		
	WHEELS		
CARBURETOR	TIRES:	SIZE	CONDITION
	R. FRONT		
IGNITION	L. FRONT		
WIRING	R. REAR		
CLUTCH	L. REAR		
TRANSMISSION	SPARE TIRE		
UNIVERSALS	BODY CATEGORY		
DRIVE SHAFT	BODY CONDITION		
REAR AXLE			
DIFFERENTIAL	PAINT		
RADIATOR	MILEAGE		
STEERING	DATE PURCHASED		
FRONT AXLE	NOW LOCATED AT		
FRAME	INSPECTED BY		
BRAKES	TITLE		

IS VEHICLE IN OPERATING CONDITION?\* Yes \_\_\_\_\_ No \_\_\_\_\_

**\*If vehicle is not in operating condition, such fact should be noted in the trade-in description on face of requisition.**

## **SECTION C - AUTOMOBILE AND TRUCK REQUIREMENTS:**

### **C.1. GENERAL REQUIREMENTS:**

- 1.1. STANDARD MODELS:** The vehicles listed in the following sections are the chassis manufacturer's standard models and shall be furnished complete with all standard equipment and factory-installed accessories listed in the manufacturer's printed literature for the respective unit, **unless listed in the options list of this specification and the option is not listed on the Invitation for Bid** (See Section A.4.1). The items are minimum requirements for the models specified herein and shall be provided whether shown as optional or standard equipment by the manufacturer.
- 1.2. ALTERNATIVE FUEL REQUIREMENTS:** Specifications for Alternative Fuel Vehicles are listed in Section D.
- 1.3. ADDITIONAL EQUIPMENT:** Additional equipment, in addition to, or in lieu of standard equipment required for a particular application, is listed immediately below the "Minimum Requirements Tables" of each vehicle Series.
- 1.4. OPTIONAL EQUIPMENT AND ACCESSORIES:** Optional equipment and accessories are listed in Section E. and shall be furnished **when so specified in the Invitation for Bid**.
- 1.5. STANDARD EQUIPMENT:** A list of standard equipment required on each approved model listed for a vehicle Series precedes the "**Minimum Requirements Tables**" in each section.
- 1.6. TRUCK BODY SPECIFICATIONS:** Dump, Stationary, and Utility Body and related dump body equipment specifications are listed in Sections F., G., and H.
- 1.7. VEHICLE SERIES DESIGNATIONS:** The automobiles and trucks meeting the requirements of this specification have been classified and numbered into Series/Categories.
- 1.8. ENGINE SUFFIXES:** Suffix letters indicate engine type as follows:

<b>A</b> = 4 cylinder	<b>B</b> = 5/6 cylinder	<b>C</b> = 8 cylinder	<b>D</b> = diesel	<b>G</b> = gasoline
	<b>H</b> = Hybrid	<b>ALT</b> = Alternative Fuel		



**C.2. GENERAL PURPOSE AUTOMOBILES:** Unless specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1 and Section C.1.1). The following items are minimum requirements for the models specified herein and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each Series number. These additional requirements listed below any table are in lieu of or in addition to, the following general requirements for General Purpose Automobiles:

**2.1. Body:**

- 2.1.1. Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer.
- 2.1.2. Air Conditioning:** Manufacturer's standard.
- 2.1.3. AM/FM Radio:** Manufacturer's standard.
- 2.1.4. Covering, Luggage Compartment:** The luggage compartment floor shall be covered with a vinyl, rubber, or fiber type mat.
- 2.1.5. Heater and Defroster:** Integral, OEM Standard
- 2.1.6. Jack, Handle, and Lug Wrench**
- 2.1.7. Power Package:** Includes power windows, power locks, power mirrors, cruise control, and tilt steering wheel. (Option No. 87 to delete entire power package) (Option No.87 is not available from Nissan.)
- 2.1.8. Spare Wheel (Manufacturer's standard spare wheel & tire).**
- 2.1.9. Windshield Wipers:** Dual electric 2-speed type with intermittent feature windshield washers.
- 2.1.10. Upholstery:** Cloth standard (Select Option No. 258, for vinyl seat fabric). (Option No. 258 is not available from Nissan.)

**2.2. Chassis:**

- 2.2.1. Tires:** Radial type tubeless tires shall be OEM manufactured standard. NOTE: Option 107 Full Spare Tire.
- 2.2.2. Power Steering:** Manufacturer's standard.
- 2.2.3. Automatic Transmission**
- 2.2.4. Power, ABS, Required,** Manufacturer's standard; front disc, 2- or 4-wheel (All Series).
- 2.2.5. Flex Fuel,** if available

**C.2. GENERAL PURPOSE AUTOMOBILES (continued): Refer to General Requirements, Preceding Each Group.**

**NEW SERIES  
COMPACT HATCHBACK  
4-CYLINDER, 5-DOOR**

<b>Series 350A</b>							
<b>ITEM</b>	<b>Minimum Req</b>	<b>Chrysler PT Cruiser ____LX____</b>	<b>Chevrolet HHR * E85 1AT46</b>	<b>Saturn Vue ZLF26</b>	<b>Saturn Astra ZAR48</b>	<b>Dodge Caliber ____SE____</b>	<b>Toyota Matrix 1932</b>
Wheelbase, inches	102	103	103.4	106.6	103	103.7	102.4
Length, inches	167	168.8	176.2	180	167	173.8	171.3
Width, inches	67	67.10	69.1	72.8	69	68.8	69.9
Displacement, liters	1.8L	2.4L	2.2L 2.2L*2.4L*	2.4L	1.8L	1.8L	1.8L
Engine HP	132	180	143	169	138	148	132
Torque	As shown	210	155	161	125	125	128
Tire Size & Load Range	As shown	P195/65R15	P215/55R16	P235/65R16	P205/55R16	P205/70R15	P205/55/R16
Transmission, Automatic	As Shown	4 speed	4- Speed Auto	4-Speed Auto	4-Speed Auto	5 speed	
Emissions Certification	As shown	NAS/BIN 5	Bin 5 ULEV2	Bin 4/ ULEV2	Bin 5/ ULEV2	NAS/BIN5	ULEV 2 Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable							

**COMPACT SEDAN (5 PASSENGER) 4-CYLINDER, FRONT WHEEL DRIVE**

<b>Series 351A</b>		
<b>ITEM</b>	<b>Minimum Req</b>	<b>Ford Focus</b>
Wheelbase, inches	103	103
Length, inches	168	168.1
Width, inches	67	67.0
Displacement, liters	2.0L	2.0L
Engine HP	136	136
Torque	133	133
Tire Size & Load Range	As shown	P195/60R15
Transmission, Automatic	As Shown	
Emissions Certification	As shown	LEV TIER2B5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.		

**C.2. GENERAL PURPOSE AUTOMOBILES (continued): Refer to General Requirements, Preceding Each Group.**

**MIDSIZE HATCHBACK  
6-CYLINDER, FRONT WHEELDRIVE, 5-DOOR (5-7 Passengers)**

<b>Series 357B</b>						
<b>ITEM</b>	<b>Minimum Req</b>	<b>Dodge Journey SXT</b>	<b>Ford Edge</b>	<b>Chevy Equinox</b>	<b>Toyota Highlander 6946</b>	<b>Pontiac Torrent 2LF26</b>
Wheelbase, inches	111	113.8	111.2	112.5	112.5	112.5
Length, inches	185	192.4	185.7	188	188.4	188
Width, inches	71	72.2	87.5	71.4	75.2	71.4
Displacement, liters	3.4L	3.5	3.5L	3.4L	3.5L	3.4L
Engine HP	185	235	263	185	270	185
Torque	210	232	249	210	248	210
Tire Size & Load Range	As shown	P225/65R17	P235/65R17	P235/65R16	P245/65R R17	P235/65R18
Transmission, Automatic	As Shown	6 speed	6 speed		5 speed OD	5 speed
Emissions Certification	As shown	NAS/BIN5	Tier 2 Bin 5 ULEV II		6 LEV2 Bin 5	Bin 5 ULEV 2
Passengers		5 std 7 optional	5			

**NEW SERIES  
FULLSIZE HATCHBACK  
6-CYLINDER, FRONT WHEEL DRIVE, 5-DOOR (7 Passengers)**

Series 358B					
ITEM	Minimum Req		Saturn Outlook ZR14526	Ford Taurus X *	Ford Flex *
Wheelbase, inches	As shown		118.9	112.9	117.9
Length, inches	185		200.7	200.3	202.3
Width, inches	71		78.2	74.9	75.9
Displacement, liters	As shown		3.6L	3.5L	3.5L
Engine HP	185		270	263	263
Torque	210		248	249	249
Tire Size & Load Range	As shown		P255/65R18	P215/65RX18	P235/60R17
Transmission, Automatic			6 speed	6 speed	6 speed
Emissions Certification	As shown		Bin 5 LEV 2	Tier 2 Bin 5	Tier 2 Bin 5
Passengers				7	7

**C.2. GENERAL PURPOSE AUTOMOBILES (continued): Refer to General Requirements, Preceding Each Group.**

**INTERMEDIATE SEDAN  
4-CYLINDER, 4-DOOR**

<b>Series 359A</b>						
<b>Item</b>	<b>Minimum Requirements</b>	<b>Chevy Malibu 1ZG69</b>	<b>Nissan Altima 2.5S</b>	<b>Toyota Camry LE 2532</b>	<b>Ford Fusion</b>	<b>Dodge Avenger SE</b>
Wheelbase, inches	106	106.3	109.3	109.3	107.4	108.9
Length, inches	188	188.3	189.8	189.2	190.2	190.9
Width, inches	69.9	69.9	70.7	71.7	72.2	71.2
Displacement, liters	As Shown	2.4L 4Cyl	2.5L	2.4L	2.3L 14	2.4L
Engine HP	145	144	175	158	160	173
Torque	155	155	180	161	156	166
Tire Size & Load Range	As Shown	P205/65R15	P215/60R16	P215 /60R16	P205/60T R16	P225/65 R16
Transmission, Automatic	As Shown	4 speed auto		5 speed OD	5 speed	4 speed
Emissions Certification	As Shown	Bin5/ LEV2	LEV2	U LEV 2 Bin 5	Tier 2 Bin 5 ULEV II	NAA/ Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable						

**INTERMEDIATE SEDAN  
6-CYLINDER, 4-DOOR**

<b>Series 360B</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Fusion</b>	<b>Pontiac G6 2ZG69 *E85</b>	<b>Chevy Malibu 1ZG69 E85 *</b>	<b>Nissan Altima 3.5SE</b>	<b>Toyota Camry LE 2552</b>	<b>Dodge Avenger SXT</b>
Wheelbase, inches	106	107.4	112.3	112.3	109.3	109.3	108.9
Length, inches	188	190.2	189	191.8	189.8	189.2	190.9
Width, inches	69.4	72.2	70.6	70.3	70.7	71.7	71.2
Displacement, liters	As Shown	3.0LV-6	3.5L or 3.5LHVV6 *	3.5L or 3.5LHVV6 *	3.5L V-6	3.5L-V6	2.7L V6*
Engine HP	190	221	219	219	270	268	189
Torque	190	205	219	219	258	248	190
Tire Size & Load Range	As Shown	P205/ 60R16	P225/ 50R17	P215/ 60R16	P215/ 55R17	P215/ 60R16	P215/60R17
Transmission, Automatic	As Shown	6 speed	4-Speed Auto	4-Speed Auto		5 speed OD	4-speed Auto
Emissions Certification	As Shown	Tier 2 Bin 5 ULEV II	Bin 5/ ULEV2	Bin 5/ ULEV2	LEV2	ULEV 2 Bin 5	NAA/Bin 8
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable							

**C.2. GENERAL PURPOSE AUTOMOBILES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE SEDAN  
6-CYLINDER, 4-DOOR, FRONT WHEEL DRIVE**

<b>Series 372B</b>						
ITEM	Minimum Req	Avalon XL 3534	Chevy Impala 1WB19 E85	Buick Lucerne 4HP69 E85	Nissan 3.5 Maxima SE	Ford Taurus
Wheelbase, inches	109	111.0	110.5	115.6	109.3	112.9
Length, inches	190	197.2	200.4	203.2	190.6	200.7
Width, inches	72	72.8	72.9	73.8	73.2	74.5
Displacement, liters		3.5L V-6	3.5L V-6*	3.5L V-6*	3.5L V-6	3.0L-V6
Engine HP	180	268	211	197	TBD	203
Torque	207	248	214	227	TBD	207
Tire Size & Load Range	As Shown	P215/60R16	P225/60R16	P225/60R16	P245/45VR18V	P215/60R17
Transmission, Automatic	As Shown	6 speed OD	4-Speed Auto	4-Speed Auto		6 speed
Emissions Certification	As Shown	ULEV 2 Bin 5	LEV2 Bin5	Lev 2 Bin 5	ULEV/LEV2	Tier 2 BIN5
<b>*Note:</b> This denotes a FLEX Fuel Vehicle (FFV) – E85 capable						

**FULL SIZE SEDAN  
6-CYLINDER, UNI BODY, 4-DOOR, REAR WHEEL DRIVE**

<b>Series 373B</b>			
ITEM	Minimum Requirements	Pontiac G8 2ER69	Dodge Charger SXT
Wheelbase, inches	114	114.8	120
Length, inches	196	196.1	200.1
Width, inches	74	78.8	74.5
Displacement, liters	3.5L	3.6L V-6VVT	3.5L V-6
Engine HP	250	256	250
Torque	248	248	250
Tire Size & Load Range	As Shown	P245/25R18V-96V	P215/6517H
Transmission, Automatic	As Shown	5 Speed Auto	5 speed Auto stick
Emissions Certification	As Shown	Bin 5/ LEV 2	NAS/Bin 5
<b>*NOTE:</b> This denotes a FLEX Fuel Vehicle (FFV) – E85 capable			

**a. Optional Features:**

1. Option 48: Reference this option for next biggest engine.

**C.2. GENERAL PURPOSE AUTOMOBILES (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE SEDAN  
8-CYLINDER, 4-DOOR, REAR WHEEL DRIVE**

<b>Series 374C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Crown Victoria (P73) FFV E85</b>	<b>Dodge Charger R/T</b>
<b>Wheelbase, inches</b>	<b>114.7</b>	114.7	120
<b>Length, inches</b>	<b>197</b>	212	201
<b>Width, inches</b>	<b>74</b>	78.2	74.5
<b>Displacement, liters</b>	<b>As Shown</b>	4.6L V-8**	5.7 L V-8
<b>Engine Net HP</b>	<b>220</b>	220	370
<b>Net Torque</b>	<b>250</b>	265	398
<b>Tire Size &amp; Load Range</b>	<b>As Shown</b>	P215/60R17	P225/60R18
<b>Transmission, Automatic</b>	<b>5 Speed Auto</b>	5 Speed Auto	5 speed Auto
<b>Emissions Certification</b>	<b>As Shown</b>	LEV Tier 2 BIN5	NAA/Bin 4
<b>Note: See Section A3.3. for limited usage on this series. Note: E85 Flex Fuel engine is standard.</b>			

### C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE

**VEHICLES:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The following items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below any table are in lieu of, or in addition to, the following general requirements for Special Purpose Automobiles (Law Enforcement) Pursuit or Special Service Vehicles:

#### a. Body:

1. **Air Conditioning:** Manufacturer's standard.
2. **Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer. Agency may select Option 5 to delete the side curtain airbag requirement. Please consider the **Safety** factor when selecting this option.

SIDE CURTAIN AIR BAGS NOTE: The installation of a prisoner transport cage in any vehicle equipped with side curtain (one-piece) airbags could severely impact the designed deployment of the bag. CPA recommends that purchasers consult with the vehicle and cage manufacturers to identify any interference issues prior to installing a prisoner transport cage.

3. **AM/FM Radio:** Manufacturer's standard.
4. **Bonding Strap Package:** Hood and rear deck lid shall have radio interference bonding straps to body, if available from manufacturer.
5. **Auxiliary Power Outlet:**
6. **Floor Covering, Carpet:** OEM installed.
7. **Luggage/Cargo Compartment Light:** Automatic.
8. **Instrumentation:** Manufacturer's full gauge package, if available.
9. **Spare Wheel, Mounted:** Tire shall be the same type as furnished on the vehicle series. (See Option 108 for space saver wheel and tire.)
10. **Seats:** bucket style front, minimum 5 passenger (including driver), manufacturer's standard cloth type. Interior upholstery shall be available in a minimum of 2 different colors if available.
11. **Power Package:** Includes power windows, power locks, power mirrors, cruise control, and tilt steering wheel. **(Select Option 87 to delete power package.)**

#### b. Chassis:

1. **Power Brakes, ABS (Required):** Manufacturer's standard; front disc, 2- or 4-wheel.
2. **Wheel Covers/Hub Caps:** Manufacturer's center caps or full size steel wheel covers unless vehicle is equipped with styled aluminum wheels as standard (plastic center caps are acceptable and full size plastic wheel covers are not acceptable).
3. **Automatic Transmission:** 4 or 5 speed heavy-duty type with external transmission oil cooler if available.
4. **Flex Fuel,** if available

#### c. Engine:

1. **Cooling System:** Manufacturer's largest capacity/heavy-duty with external engine oil cooler if available.

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued): Refer to General Requirements, Preceding Each Group.**

**MID SIZE UTILITY VEHICLE \*  
SPECIAL SERVICE PACKAGE  
6-CYLINDER, LIGHT-DUTY, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 463BLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Explorer XLT SSV FFV E85</b>
Wheelbase, inches	113	113.7
Approximate Payload Allowance, pounds	1,417	1,530
Overall Length, inches	190	193.4
Length, Cargo,-cubic feet	85	85.8
GVWR, pounds	5,720	6,110
Engine, Displacement, liters	4.0L	4.0L V-6
Engine, HP	210	210
Engine, TORQUE	254	254
Transmission, Automatic	4-speed OD	5-speed OD
Tire Size & Load Range	As Shown	P235/70R16SL
Rim Size, inches	As Shown	7
<b>Emissions Certification</b>	As Shown	NLEV TIER 2 BIN4
<p>* <b>Note:</b> LE designation for Law Enforcement Pursuit or Special Service Vehicles Only.</p> <p>* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable</p> <p>** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement..."</p>		

**Additional Options:**

1. Option 52 for 4-wheel drive.
2. Option 133 Trailer Towing Package, Class III
3. Option 134 Trailer Towing Package, Class IV



**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**New Series  
Extended Length Carry-all**

<b>Series 464BLE</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy Suburban CC10906* E 85</b>	<b>Ford Expedition EL FFV E85</b>
Wheelbase, inches	119	133	119.0
Approximate Payload Allowance, pounds	1618	1,618	1,620
Overall Length, inches	205	222.4	205.8
Length, Cargo, cubic feet	87	101.8	87.2
GVWR, pounds	7200	7,200	7,350
Engine, Displacement, liters	5.3V8	5.3L V-8 *	5.4L V-8 FFV *
Engine, HP	300	300	300
Engine, TORQUE	365	365	365
Transmission, Automatic	As Shown	6-speed OD	6-speed Auto
Tire Size & Load Range	As Shown	P265/70R17	P265/70R17
Rim Size, inches	As Shown	7	7
<b>Emissions Certification</b>	As Shown	Bin 5 Lev 2	Tier 2 Bin 5
<p>* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.  ** <b>Note:</b> <u>LE</u> designation for Law Enforcement Pursuit or Special Service Vehicles Only.  *** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement..."</p>			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Floor Covering, Cargo Compartment:** Cargo compartment floor shall be covered with manufacturers standard carpet or rubber floor covering. **(Requirement will be indicated prior to ordering vehicle)**

**b. Chassis:**

1. **Suspension:** Heavy-duty suspension and components.

**NOTE:** See Option 52 for 4-wheel drive.

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE UTILITY VEHICLE \*\*  
SPECIAL SERVICE PACKAGE  
8-CYLINDER, HEAVY-DUTY, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 465CLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Expedition FFV E85</b>
Wheelbase, inches	119	119.0
Approximate Payload Allowance, pounds	1,620	1,850
Overall Length, inches	205	206.5
Length, Cargo, inches	87	82.5
GVWR, pounds	6,900	7,400
Engine, Displacement, liters	5.4L V-8	5.4L V-8 <b>FFV *E85</b>
Engine, HP	300	300
Engine, TORQUE	365	365
Transmission, Automatic	Automatic A40D	6spd Auto
Tire Size & Load Range	As Shown	P265/70R17
Rim Size, inches	As Shown	7
<b>Emissions Certification</b>	As Shown	Tier 2 Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable		
** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement..."		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Floor Covering, Cargo Compartment:** Cargo compartment floor shall be covered with manufacturer's standard **carpet or rubber floor covering**.

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE UTILITY VEHICLE \*\*\*  
SPECIAL SERVICE PACKAGE  
8-CYLINDER, HEAVY-DUTY, 4-DOOR, 4 WHEEL DRIVE**

<b>Series 466 CLE</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy Tahoe 4WD CK10706** E85*</b>	<b>Ford Expedition SSV FFV E85</b>
Wheelbase, inches	116	116	119.0
Approximate Payload Allowance, pounds	1,538	1,538	1,900
Overall Length, inches	202	202	206.5
Length, Cargo, inches	81	81.4	82.5
GVWR, pounds	6,800	6,800	7,700
Engine, Displacement, liters	5.3L V-8	5.3L V-8 * E85	5.4L V-8 <b>FFV * E85</b>
Engine, HP	295	295	300
Engine, TORQUE	335	335	365
Transmission, Automatic	Automatic A4OD	M30	6spd Auto
Tire Size & Load Range	As Shown	P265/70R17	P265/70R17
Rim Size, inches	As Shown	7.5	7
<b>Emissions Certification</b>	As Shown	Bin 5/Lev 2	Tier 2 Bin 5
EPA City/HWY As Shown 14/19			
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			
** <b>Note:</b> <u>LE</u> designation for Law Enforcement Pursuit or Special Service Vehicles Only.			
*** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement. . ."			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Floor Covering, Cargo Compartment:** Cargo compartment floor shall be covered with manufacturer's standard **carpet or rubber floor covering**.

- b. Optional Features** available from manufacturer must be identified on purchase order at time of purchase:

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE UTILITY VEHICLE \*\*\*  
PURSUIT VEHICLE  
8-CYLINDER, HEAVY-DUTY, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 468 CLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy Tahoe 2WD CC10706 ** E85*</b>
Wheelbase, inches	116	116
Approximate Payload Allowance, pounds	1,393	1,393
Overall Length, inches	198.8	202
Length, Cargo, inches	81	81.4
GVWR, pounds	6,400	6,400
Engine, Displacement, liters	5.3L V-8	5.3L V-8 * E85
Engine, HP	295	295
Engine, TORQUE	330	335
Transmission, Automatic	Automatic A4OD	4-Speed Auto
Tire Size & Load Range	As Shown	P265/60R17H
Rim Size, inches	As Shown	7.5
Emissions Certification		Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable		
** <b>Note:</b> <u>LE</u> designation for Law Enforcement Pursuit or Special Service Vehicles Only.		
*** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement. . ."		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

- a. **Body:**
  - 1. **Floor Covering, Cargo Compartment:** Cargo compartment floor shall be covered with manufacturers' standard **carpet or rubber floor covering**.
  - 2. **Speedometer:** Certified, calibrated to within plus or minus 2 MPH accuracy.
- b. **Chassis:**
  - 1. **Heavy Duty, Locking Differential.**

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE PURSUIT SEDAN \*\*\*  
4-DOOR, FRONT WHEEL DRIVE, 6-CYLINDER**

<b>Series 471 BLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Impala 9C1 **E85 1WS19</b>
Wheelbase, inches	110.5	110.5
Length, inches	200	200.4
Width, inches	72	72.9
Displacement, liters	As Shown	3.9L V6 <b>E85 Std. *</b>
Engine HP	233	233
Torque	240	240
Tire Size & Load Range	As Shown	P225/60R16 "V"
Transmission, Automatic		4 speed
Rim Size, inches	As Shown	7
Emissions Certification		Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable		
** <b>Note:</b> LE designation for Law Enforcement Pursuit or Special Service Vehicles Only.		
*** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement. . "		

**SPECIAL NOTE 1:** General Motors may require pilot model inspection on special order two-tone paints

**SPECIAL NOTE 2:** 9C1 means regular police package (Model 9C3 means undercover street appearance package)

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Covering, Luggage Compartment:** Luggage compartment floor shall be covered with a rubber, or fiber type mat.
2. **Speedometer:** Certified, calibrated to within plus or minus 2 MPH accuracy.
3. **Trunk Release:** To be ignition fed, if offered by manufacturers.

**b. Chassis:**

**Suspension:** Police pursuit rated suspension & components.

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE SEDAN \*\*\*  
PURSUIT  
4-DOOR, UNI BODY, REAR WHEEL DRIVE, 6-CYLINDER**

<b>Series 474BLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Charger Police Package **</b>
Wheelbase, inches	120	120
Length, inches	197	200.1
Width, inches	74	74.5
Displacement, liters	3.5L	3.5L V-6
Engine HP	370	250
Torque	398	250
Transmission, Automatic	As Shown	
Tire Size & Load Range	As Shown	P225/60VR18 BSW V-rated
Emission Certification	As Shown	NAA/BIN 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.		
** <b>Note:</b> LE designation for Law Enforcement Pursuit or Special Service Vehicles Only.		
*** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement.."		

**SPECIAL NOTE 1:** The Dodge Charge is also available with 5.7L Hemi V8, 370hp and 398 torque. (See 476CLE Series).

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Covering, Luggage Compartment:** Luggage compartment floor shall be covered with a rubber, or fiber type mat.
2. **Speedometer:** Certified, calibrated to within plus or minus 2 MPH accuracy.
3. **Trunk Release:** To be ignition fed.

**b. Chassis:**

1. **Suspension:** Police pursuit rated suspension & components.
2. **Axle Ratio:** Agency will get the 2.65 axle ratio when they order the 5.7L V8 engine and Agency will get 2.87 axle ratio when they order the 3.5L V6
  - a. Axle Ratio: 5.7L V8 equals 2
  - b. Axle Ratio: 3.5L VLE equals 2

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE PURSUIT SEDAN \*\*\*  
4-DOOR, REAR WHEEL DRIVE, 8-CYLINDER**

<b>Series 475CLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Crown Victoria FFV E85 **</b>
Wheelbase, inches	114.7	114.7
Length, inches	200.1	212
Width, inches	74.5	78.2
Displacement, liters	As Shown	4.6L V-8 FFV * E85
Engine HP	250	250
Torque	250	287
Transmission, Automatic		4 speed
Tire Size & Load Range	As Shown	P225/60VR17
Emissions Certification	As Shown	LEV II
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.		
** <b>Note:</b> LE designation for Law Enforcement Pursuit or Special Service Vehicles Only.		
*** <b>Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement.."		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Covering, Luggage Compartment:** Luggage compartment floor shall be covered with rubber, or fiber type mat.
2. **Speedometer:** Certified, calibrated to within plus or minus 2 MPH accuracy.
3. **Trunk Pack:** With Kevlar or agency Ordering Entity Approved Equal front liner.
4. **Trunk Release:** To be ignition fed.

**b. Chassis:**

1. **Suspension:** Police pursuit rated suspension and components.
2. **Axle Ratio:** Agency must designate axle ratio (3.27 standard or optional 3.55).

**Additional Options:**

- a) Select Option 4 for Axle Ratio.
- b) Select Option 193 for Factory Installed Silicone with Aircraft Clamps.
- c) Select Option 194 for Vehicle Keyed-alike at factory.
- d) Select Option 195 for Rear Doors locks/handles inoperable at factory.
- e) Select Option 196 for Rear Window Power Switch Delete (include rear power window switches operable on driver's door only at factory.
- f) Select Option 197 for Extra set of vehicle keys.

**C.3. SPECIAL PURPOSE AUTOMOBILES - LAW ENFORCEMENT (LE) PURSUIT OR SPECIAL SERVICE VEHICLES (continued):** Refer to General Requirements, Preceding Each Group.

**FULL SIZE PURSUIT SEDAN \*\*\*  
4-DOOR, REAR WHEEL DRIVE, 8-CYLINDER**

<b>Series 476CLE</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Charger</b>
Wheelbase, inches	120	120
Length, inches	197	200.1
Width, inches	74	74.5
Displacement, liters	5.7L	5.7L V-8 E85
Engine HP	370	370
Torque	398	398
Transmission, Automatic	As Shown	
Tire Size & Load Range	As Shown	P225/60VR18 BSW V-rated
Emission Certification	As Shown	
<b>** Note:</b> LE designation for Law Enforcement Pursuit or Special Service Vehicles Only. <b>*** Note:</b> Restrictions in Section 2158.003, Government Code, "for criminal law enforcement.."		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Covering, Luggage Compartment:** Luggage compartment floor shall be covered with rubber, or fiber type mat.
- 2. Speedometer:** Certified, calibrated to within plus or minus 2 MPH accuracy.
- 3. Trunk Release:** To be ignition fed.

**b. Chassis:**

- 1. Suspension:** Police pursuit rated suspension and components.
- 2. Axle Ratio:** Agency will get the 2.65 axle ratio when they order the 5.7L V8 engine and Agency will get 2.87 axle ratio when they order the 3.5L V6
  - a. Axle Ratio: 5.7L V8 equals 2
  - b. Axle Ratio: 3.5L VLE equals 2



**C.4. UTILITY VEHICLES (CARRYALLS, 4-WHEEL DRIVE UTILITY, AND CARGO VANS):** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory- installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The following items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below any table are in lieu of, or in addition to, the following general requirements for Utility Vehicles:

**a. Body:**

1. **Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer.
2. **Air Conditioning:** Manufacturer's standard.
3. **Arm Rests:** Left door only. Both right and left arm rests are required if right front seat is provided.
4. **AM/FM Radio:** Manufacturer's standard.
5. **Auxiliary Power Outlet:** 12 volt.
6. **Heater and Defroster:** See Accessory Specifications.
7. **Power Package:** Includes power windows, power locks, power mirrors, cruise control, and tilt steering wheel. (Select Option 87 to delete power package.)
8. **Seat, Cloth:** Front seats split bench 40/60, 40/20/40, or buckets. (Bench not acceptable) (Option No. 258 is for vinyl seats.)
9. **Sun Visor:** Driver's side only. Dual sun visors are required if right front seat is provided.
10. **Windshield Wipers:** Dual electric 2-speed type with intermittent feature windshield washers.

**b. Chassis:**

1. **Brakes, ABS, required,** Manufacturer's standard; front disc, 2- or 4-wheel.
2. **Automatic Transmission**
3. **Bumpers:** Manufacturer's standard front and rear bumper.
4. **Ground Ratings:** As required for the GVWR certified.
5. **Jack, Handle, and Lug Wrench**
6. **Shock Absorbers:** Front and rear. Manufacturer's heaviest duty shocks without increase in vehicle trim level.
7. **Spare Wheel and Tire (mounted on carrier):** Manufacturer's standard. Must be OEM BRAND NAME, TYPE AND SIZE OF TIRE to those on the vehicle.
8. **Tires (including spare):** Steel belted radial type tubeless tires.
9. **Power Steering:** Manufacturer's standard.
10. **Flex Fuel,** if available

**C.4. UTILITY VEHICLES (CARRYALLS, 4-WHEEL DRIVE UTILITY, AND CARGO VANS) (continued):****c. Cargo Weight:**

- 1. Approximate Payload Allowance:** The payload allowance is the weight of cargo that may be carried by the standard, base vehicle. It is found by adding the weight of the driver and all passengers (150 pounds each) to the curb weight and subtracting the total from the GVWR.

**CARRYALL  
GASOLINE, 1/2 TON, 2 WHEEL DRIVE**

<b>Series 650C</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>FORD Expedition EL *FFV E85</b>	<b>Chevrolet CC10906*E85 /Suburban</b>	<b>GMC Yukon XL TC10906*E85</b>
Wheelbase, inches	130	131	130	130
Approximate Payload Allowance, pounds	1,775	1,775	1,800	1,800
Overall Length, inches	221	221	222	222
GVWR, pounds	7200	7,625	7,200	7,200
Engine, Displacement, liters	5.3L V-8	5.4L FFV * E85	5.3L V-8* E85	5.3L V-8* E85
Engine, HP	285	300	295	295
Engine, TORQUE	335	365	335	335
Transmission, Automatic	Automatic	6SPD Auto	M30	6-speed
Tire Size & Load Range	As Shown	P265/70RX17	P265/70R17	7P265/70R17
Rim Size, inches	7	7.5	7.5	7.5
<b>Note:</b> E85 Flex Fuel engine is standard.				

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Seating Capacity:** Minimum 5, including the driver. See Option No. 99 to increase seating capacity.

**NOTE:** Unless Option No. 99 is requested, this vehicle will be provided with a front and middle seat only.

- 2. Full Length Headliner,** if available

**C.4. UTILITY VEHICLES (CARRYALLS, 4-WHEEL DRIVE UTILITY, AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**CARRYALL  
GASOLINE, 3/4 TON, 2 WHEEL DRIVE**

<b>Series 655C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet C20906 /Suburban</b>	<b>GMC Yukon XL TC20906</b>
Wheelbase, inches	130	130	130
Approximate Payload Allowance, pounds	2357	2,357	2,357
Overall Length, inches	222	222	222
GVWR, pounds	8,600	8,600	8,600
Engine, Displacement, liters	As Shown (V-8)	6.0L V-8	6.0L V-8
Engine, HP	335	352	352
Engine, TORQUE	375	383	383
Transmission, Automatic	Automatic	6-Spd	6-speed
Tire Size & Load Range	As Shown	LT245/75R16E	LT245/75R16E
Rim Size, inches	As Shown	7	7
Emissions Certification	As Shown	Bin 5 LEV	Bin 5
<b>Note:</b> See Section A3.3. for limited usage on this series.			
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Doors, Rear:** Panel type, unless otherwise specified in the Invitation for Bids.
2. **Seating Capacity:** Minimum 5, including the driver. See Option No. 99 to increase seating capacity.

**NOTE:** Unless Option No. 99 is requested, this vehicle will be provided with a front and middle seat only.

3. **Full Length Headliner,** if available

**C.4. UTILITY VEHICLES (CARRYALLS AND 4-WHEEL DRIVE UTILITY, AND CARGO VANS) (continued):**  
Refer to General Requirements, Preceding Each Group

**UTILITY VEHICLE, SMALL SIZE, REAR DRIVE  
6-CYLINDER, LIGHT-DUTY, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 660B</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Nitro</b>
Wheelbase, inches	108	108.8
Approximate Payload Allowance, pounds	1,150	1,150
Overall Length, inches	174	178.9
Length, Cargo, inches	61.5	69
GVWR, pounds	4,680	5,300
Engine, Displacement, liters	As Shown	3.7L V6
Engine, HP	190	210
Engine, TORQUE	235	235
Transmission, Automatic	Automatic	4-speed with overdrive
Tire Size & Load Range	As Shown	P225/75 R16
Rim Size, inches	As Shown	7
Emissions Certification	As Shown	NAA/ Bin 5

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Seating Capacity:** 4, including driver (minimum).

**C.4. UTILITY VEHICLES (CARRYALLS, 4-WHEEL DRIVE UTILITY, AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**UTILITY VEHICLE, SMALL SIZE  
6-CYLINDER, LIGHT-DUTY, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 661B</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Nissan Xterra S</b>	<b>Ford Escape</b>	<b>Saturn VUE ZLR26**</b>	<b>Toyota Highlander</b>
Wheelbase, inches	103	106.3	103.1	106.6	106.9
Approximate Payload Allowance, pounds	1,150	1,123	1,113	1,157	1,711
Overall Length, inches	174.7	178.7	174.7	180.1	184.6
Length, Cargo, inches	61.5	61.8	66.7	56.4	67.95
GVWR, pounds	4,680	5,400	4,500	5057	5,360
Engine, Displacement, liters	As Shown	4.0L V6	3.0L V6	3.6L V6	3.3L V6
Engine, HP	190	261	200	257	215
Engine, TORQUE	193	281	193	248	222
Transmission, Automatic	Automatic	Auto 5-Speed	Auto 4-Speed	Auto 6 - Speed	Auto 5-speed
Tire Size & Load Range	As Shown	P265/70R16	P235/70R16	P235/60R17	P225/70R16
Rim Size, inches	As Shown	7	7	7	6.5
Emissions Certification	LEV	505 ULEV	LEV TIER 2B5	Bin 5/ ULEV2	LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Seating Capacity:** 4 passengers including driver (minimum).

**C.4. UTILITY VEHICLES (CARRYALLS, AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**UTILITY VEHICLE, MID SIZE  
REAR WHEEL DRIVE, 4-DOOR, 2-WHEEL DRIVE  
6-CYLINDER, LIGHT-DUTY**

<b>Series 662B</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy Cs15506 Trailblazer</b>	<b>Grand Cherokee Laredo</b>	<b>Ford Explorer</b>	<b>Nissan Pathfinder</b>	<b>Toyota 4 Runner</b>
Wheelbase, inches	109	113.0	109.5	113.7	112.2	109.8
Approximate Payload Allowance, pounds	1050	1125	1050	1,530	1,564	1,285
Overall Length, inches	186	191.8	186.7	193.4	192.3	189.2
Length, Cargo, inches	68	80.1	70.83	74.4	72.8	68.58
GVWR, pounds	5,500	5550	5700	6,110	6,000	5,330
Engine, Displacement, liters	As Shown	4.2L Inline 6	3.7 V-6 4.7 L V8*	4.0L V-6	4.0L V-6	4.0L V6
Engine, HP	210	291	210	210	266	236
Engine, TORQUE	235	277	235	254	288	266
Transmission, Automatic	Automatic	M30	5 speed auto	5 speed Auto	5 speed Auto	A50D
Tire Size & Load Range	As Shown	P235/75R16	P245/65R17	P235/70R16	P245/75R16	P265/70R16
Rim Size, inches	As Shown	16X7"	7.5	7	7	7
Emissions Certification	As Shown	LEV2BIN5	NAA/BIN 5	ULEV Tier 2 Bin 5	LEV2	ULEV 2 Bin 5
<p>* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable</p> <p><b>Note:</b> See Section A3.3. for limited usage on this series.</p>						

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**b. Body:**

- 1. Seating Capacity:** Minimum 5 passengers including driver.

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group**

**UTILITY VEHICLE, MID SIZE  
FRONT WHEEL DRIVE, 4-DOOR, 2-WHEEL DRIVE  
6-CYLINDER, LIGHT-DUTY,**

<b>Series 663B</b>								
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Journey SXT</b>	<b>Ford Taurus X</b>	<b>Ford Escape</b>	<b>Toyota Highlander</b>	<b>Ford Edge</b>	<b>Chevrolet/ Equinox/ 1LF26</b>	<b>GMC Torrent 2FL26**</b>
Wheelbase, inches	112	113.8	112.9	103.1	109.8	111.2	112.5	112.5
Approximate Payload Allowance, pounds	1,150	1203	1,150	1,113	1,821		1,151	1,151
Overall Length, inches	188	192.4	200.3	174.7	188.4	185.7	188.8	188.8
Length, Cargo, inches **	68	72.2	88.3	66.7	67.95	69.0 cu Ft.	68.6	68.6
GVWR, pounds	5,009	5100	5,009	4,500	5,800		5,070	5,070
Engine, Displacement, liters	As Shown	3.5L V6	3.5L V6	3.0L V6	3.5L V6	3.5L	3.4L V6	3.4L V6
Engine, HP	185	232	263	200	270	265	185	185
Engine, TORQUE	207	235	249	193	248	250	210	210
Transmission, Automatic	Automatic	6-Speed Auto		4-Speed Auto	5-speed op	6-Speed	5-Speed	5-speed
Tire Size & Load Range	As Shown	P225/70 R16	P215/65RX 18BSW	P235/70R16	P245/65R17	P235/65R17	P235/65R16	P235/65R16
Rim Size, inches	As Shown	16	18	7	7.5	17	16X6.5	16X6.5
Emissions Certification	As Shown	LEV2 Bin 5	LEV Tier 2 Bin 5	ULEV / 2TIER 2B8	ULEV 2 Bin 5	Tier 2 Bin 5 ULEV II	LEV2 Bin 5	LEV 2 Bin
<b>Note:</b> See Section A3.3 for limited usage on this series.								

**\*\* Cargo Length:** As measured behind the second (2) row seat.

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

- Seating Capacity:** Minimum 5 passengers including driver.

**Additional Options:**

- Option 6: All Wheel Drive**

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group**

**UTILITY VEHICLE, FULL SIZE  
8-CYLINDER, REAR WHEEL DRIVE, 4-DOOR, 2-WHEEL DRIVE**

<b>Series 665C</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet /GMC*E85 Tahoe/Yukon</b>	<b>Ford Expedition</b>	<b>Dodge Durango</b>	<b>Nissan Armada SE 4x2</b>
Wheelbase, inches	116	116	119	119.2	123.2
Approximate Payload Allowance, pounds	1,603	1,941	1,900	1,750	1,728
Overall Length, inches	193.0	202	206.5	200.8	207.7
Length, Cargo, inches **	49	49.4	60.9	68.4	67.5
GVWR, pounds	6,050	7,100	7,400	6,400	7,100
Engine, Displacement, liters	As Shown	5.3L V-8 * E85	5.4L V-8 <b>FFV *</b> <b>E85</b>	4.7L V-8 * E85	5.6L V-8
Engine, HP	295	320	300	303	317
Engine, TORQUE	325	340	365	330	385
Transmission, Automatic	Automatic	4 speed/6 speed	6 Speed Auto	5 Speed	5 speed Auto OD
Tire Size & Load Range	As Shown	P265/70R17	P265/70Rx17	P245/70R17	P265/70R18
Rim Size, inches	As Shown	7.5	7	8	8
Emissions Certification	As Shown	Lev	LEV Tier 2 Bin 8	NAS/BIN 8A	Tier 2-Bin8Z
<b>Note:</b> See Section A3.3. for limited usage on this series.					
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.					

**\*\* Cargo Length:** As measured behind the second (2) row seat.

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**Special NOTE 1:** See Option No. 52 for 4-Wheel Drive.

**a. Body:**

1. **Seating Capacity:** 4 passenger, including driver.
2. **Air Conditioning:** Front and Rear.



**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group. (FRONT WHEEL DRIVE)**

**NEW SERIES**  
**Utility Vehicle, Midsize**  
**4 cylinder, Front wheel Driver 4 Door**

<b>Series 667A</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy HHR Panel *E85</b>	<b>Transit Connect</b>
Wheelbase, inches	103	103	
Approximate Payload Allowance, pounds	900	900	
Overall Length, inches	176	176.2	
Length, Cargo, inches	57	57.7	
GVWR, pounds	4,470		
Engine, Displacement, liters	2.2L	2.2L 14 *	
Engine, HP	149	149	
Engine, TORQUE	152	152	
Transmission, Automatic	Automatic	A40D	
Tire Size & Load Range	As Shown	P215/55R16	
Rim Size, inches	As Shown	6.5	
Emissions Certification	As Shown	Bin 5/ULEV 2	
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Cargo Door:** Manufacturer's standard configuration.
2. **Seating Capacity:** Driver and front passenger.
3. **Full Length Headliner,** if available .

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued):** Refer to General Requirements, Preceding Each Group. (FRONT WHEEL DRIVE)

**MINI-CARGO VAN  
2 WHEEL / FRONT WHEEL DRIVE  
6-CYLINDER**

<b>Series 668B</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Grand Caravan CV-Long *</b>
Wheelbase, inches	113	121.2
Approximate Payload Allowance, pounds	1,600	1,950
Overall Length, inches	189	202.5
Length, Cargo, inches	100	160.7
GVWR, pounds	4,470	7,000
Engine, Displacement, liters	As Shown	3.3L V6*
Engine, HP	180	175
Engine, TORQUE	210	205
Transmission, Automatic	Automatic	A40D
Tire Size & Load Range	As Shown	P225/65R16
Rim Size, inches	As Shown	6
Emissions Certification	As Shown	NAA/BIN 5
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**b. Body:**

1. **Cargo Door:** Manufacturer's standard configuration.
2. **Seating Capacity:** Driver's and Front passenger
3. **Full Length Headliner,** if available

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued):** Refer to General Requirements, Preceding Each Group.

**NEW SERIES  
1/2 TON, FULL SIZE CARGO VAN  
6-CYLINDER, 2-WHEEL, REAR WHEEL DRIVE**

<b>Series 670B</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy *G13405</b>	<b>GMC *G13405</b>
Wheelbase, inches	135	135	135
Approximate Payload Allowance, pounds	2,110	2,420	2,420
Overall Length, inches	211	224.1	224.1
Length, Cargo, inches	120	127.8	127.8
GVWR, pounds	6,600	7,200	7,200
Engine, Displacement, liters	As Shown	4.3L	4.3L
Engine, HP	225	195	195
Engine, TORQUE	286	260	260
Transmission, Automatic	Automatic	4 speed	4 speed
Tire Size & Load Range	As Shown	P245/75R16	P245/75R16
Rim Size, inches	As Shown	6.5	6.5
Emissions Certification	As Shown	Bin 5	Bin 5
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

**1. Cargo Door:**

- a. Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door or Option No. 202 for Swing-Out Doors on driver's side).
- b. Left Side, with RH Swing-Out Doors (See Option No. 203)

**2. Full Length Headliner, if available.**

**3. Seating Capacity:** Driver's and Front passenger

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**1/2 TON FULL SIZE CARGO VAN  
STANDARD GLASS: WINDSHIELD, LEFT AND RIGHT FRONT DOORS  
8-CYLINDER**

<b>Series 670C</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevy *E85 *13405</b>	<b>Ford E 150 FFV E85</b>	<b>/GMC *H13405</b>
Wheelbase, inches	135	135	138	135
Approximate Payload Allowance, pounds	2,110	2,420	3,220	2,420
Overall Length, inches	211	224.1	216.7	224.1
Length, Cargo, inches	120	127.8	121.4	127.8
GVWR, pounds	6,600	7,200	8,520	7,200
Engine, Displacement, liters	As Shown	5.3L V8 * E85	4.6L V-8 <b>FFV *E85</b>	5.3L V8 * E85
Engine, Net HP	225	295	225	295
Engine, Net TORQUE	286	335	286	335
Transmission, Automatic	Automatic	M3O	4 SPD Auto O/D	M3O
Tire Size & Load Range	As Shown	P245/75R16	LT225/75R16E	P245/75R16
Rim Size, inches	As Shown	6.5	6	6.5
Emissions Certification	As Shown	BIN 5	Tier 2 Bin 8 LEV II	BIN 5
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable				

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**b. Body:**

**1. Cargo Door:**

- a. Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door or Option No. 202 for Swing-Out Doors on driver's side).
- b. Left Side, with RH Swing-Out Doors (See Option No. 203)

**2. Full Length Headliner, if available**

**3. Seating Capacity:** Driver's and Front passenger

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**3/4 TON FULL SIZE CARGO VAN  
STANDARD GLASS: WINDSHIELD, LEFT AND RIGHT FRONT DOORS  
8-CYLINDER**

<b>Series 680C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC * G23405</b>	<b>Ford * E 250 FFV E85</b>
Wheelbase, inches	135	135	138
Approximate Payload Allowance, pounds	2,329	3,331	3,590
Overall Length, inches	211	224.1	216.7
Length, Cargo, inches	120.5	127.6	121.4
GVWR, pounds	8,600	8,600	9,000
Engine, Displacement, liters	4.8	4.8L V-8 6.0L V-8(**6.6)	5.4L V-8 <b>FFV E85</b>
Engine, HP	255	280	255
Engine, TORQUE	294	294	350
Transmission, Automatic	Automatic	MT1	4R75N – 4 Speed
Tire Size & Load Range	As Shown	LT245/75R16E	LT245/75R16E
Rim Size, inches	As Shown	6.5	7
Emissions Certification	As Shown	LEV	LEV
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			
** <b>Note:</b> Available in Diesel (see option 48 for next larger engine)			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

**1. Cargo Door:**

- a. Right side, Swing-Out Panel (See Option 201 for Sliding Side Door).
- b. Left Side, with Right Handed Swing-Out Doors (See Option No. 203)

**2. Rearview Mirror:** Low mount, below eye level, left and right sides. Mirror shall be manufacturer's largest standard.

**3. Full Length Headliner,** if available

**4. Seating Capacity:** Driver's and Front passenger

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued):** Refer to General Requirements, Preceding Each Group.

**3/4 TON FULL SIZE EXTENDED CARGO VAN  
STANDARD GLASS: WINDSHIELD, LEFT AND RIGHT FRONT DOORS  
8-CYLINDER**

<b>Series 685C</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E250 Super Van FFV E85</b>	<b>Chevrolet Express</b>	<b>GMC Savana G23705</b>
Wheelbase, inches	138	138	155	155
Approximate Payload Allowance, pounds	3,173	3,470	3,173	3,173
Overall Length, inches	231.9	236.4	244.1	244.1
Length, Cargo, inches	140.4	141.4	147.6	147.6
GVWR, pounds	8,600	9,000	8,600	8,600
Engine, Displacement, liters	As Shown	5.4L V-8 <b>FFV* E85</b>	4.8L V-8 6.0L V-8 (**6.6)	4.8L V-8 6.0L V-8 (**6.6)
Engine, HP	255	255	280	280
Engine, TORQUE	290	350	294	294
Transmission, Automatic	Automatic	4R70W 4-Speed	MT1	MT-1
Tire Size & Load Range	As Shown	LT245/75RX16E	LT245/75R16E	LT245/75R16E
Rim Size, inches	6.5	7	6.5	6.5
Emissions Certification	As Shown	Tier 2 Bin LEV II	Bin 5	Bin 5
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable				
** <b>Note:</b> Available in Diesel (see option 48 for next larger engine)				

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Cargo Door:** Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door).
2. **Full Length Headliner,** if available
3. **Seating Capacity:** Driver's front passenger (See Option No. 97 for Passenger Seat).

**Additional Options**

1. **Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 6.0L V8)**

**C.4. UTILITY VEHICLES (CARRYALLS AND CARGO VANS) (continued): Refer to General Requirements, Preceding Each Group.**

**EXTENDED HEIGHT CARGO VAN  
3/4-TON, DIESEL**

<b>Series 687D</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge/Freightliner 2500</b>
Interior Height	64.2	64.2
Wheelbase, inches	118	118
Approximate Payload Allowance, pounds	3,950	3,950
Overall Length, inches	197	197
Length, Cargo, inches	99	99
GVWR, pounds	8,550	8,550
Engine, Displacement, liters	As Shown	3.0 I inline 5 cyl
Engine, HP	154	154
Engine, TORQUE	243	280
Transmission, Automatic	Automatic	5 speed auto
Tire Size & Load Range	As Shown	LT245/75R16
Rim Size, inches	As shown	6
Emissions Certification	As Shown	HDV / ULEV1

**Note:** Dodge/Freightliner offers an option for a gasoline engine 3.5L V6 254 HP and 250 Torque.

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Cargo Door:** Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door).
2. **Seating Capacity:** Driver's and Front passenger (See Option No. 97 for Passenger Seat).
3. **Cargo partition with sliding door**
4. **Cargo tie-down rails**
5. **Cab and cargo area insulation**
6. **Rear backup alarm**
7. **Speed (cruise) control**
8. **Top speed limiter (prevents vehicle from exceeding 74 mph).**
9. **Windows in the driver compartment only.**
10. **Two swing open rear doors with magnetic latches on each side to hold doors open.**
11. **Slide-out ramp with anti-slip flooring at rear or side door, for loading/unloading with dollies**

**b. Options:**

1. **Increase length and payload to 3,254 pounds.** (See Option No. 136.)

**C.5. PASSENGER VANS, LIGHT-DUTY:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The below items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below any table are in lieu of or in addition to, the following general requirements for Light-Duty Passenger Vans:

**a. Body:**

1. **Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer.
2. **Air Conditioning:** Front and Rear required manufacturer's standard.
3. **Arm Rests, Door-Mounted:** Both right and left arm rests are required.
4. **AM/FM Radio:** Manufacturer's standard.
5. **Auxiliary Power Outlet:** 12 volt.
6. **Headliner:** Full length.
7. **Heater and Defroster:**
8. **Power Package:** Includes power windows, power locks, power mirrors, cruise control, and tilt steering wheel. (Select Option 87 to delete entire power package) (Option No. 87 is not available from Nissan.)
9. **Seat, Cloth:** Front buckets, 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> row bench seats, where applicable (**See Option No. 258 for vinyl seats.**)
10. **Side Panels, Interior:** Rigid material with a durable finish such as plastic shall be installed on all walls and doors.
11. **Sun Visor:** Dual.
12. **Windows, Passenger:** Required (factory installed, if available) for each row of seats (See Option No. 153).
13. **Windshield Wipers:** Dual electric 2-speed type with intermittent feature windshield washers.

**b. Chassis:**

1. **Automatic Transmission**
2. **Brakes, ABS, required,** Manufacturer's standard, front disc, 2- or 4-wheel.
3. **Traction Assistance and Vehicle stability enhancement system.**
4. **Bumpers:** Manufacturer's standard front and rear.
5. **Ground Ratings:** As required for the GVWR certified.
6. **Spare Wheel and Tire: For Series 741A & 741B,** manufacturer's standard, mounted (Space Saver Tire) - (See Option 107 for Conventional Tire-- if conventional, spare wheel and tire shall be IDENTICAL IN BRAND NAME, TYPE, AND SIZE OF TIRE to those on the vehicle.)  
  
**For Series 750C to 760C,** manufacturer's standard, mounted (Conventional Tire) - spare wheel and tire shall be IDENTICAL IN BRAND NAME, TYPE, AND SIZE OF TIRE to those on the vehicle. (See Option 108 for space saver wheel and tire).
7. **Tires, Including Spare, If Conventional Type:** Steel-belted radial-type tubeless tires (all tires shall be identical).



**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**NEW SERIES  
1/2 TON COMMERCIAL MINI VAN (6-PASSENGER)  
6-CYLINDER, FRONT WHEEL DRIVE**

<b>Series 741A</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Transit Connect *</b>
Wheelbase, inches	119.3	114.6
Length, Overall, inches	200.5	179.3
GVWR, pounds	5,200	5,200
Engine, Displacement, liters	As shown	2.0L
Engine, HP	180	136
Engine, TORQUE	210	136
Transmission, Automatic	Automatic	Automatic (4-speed)
Tire Size & Load Range	As Shown	
Rim Size, inches	As Shown	15"
Emissions Certification	As Shown	
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable at no extra cost.		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

1. **Sliding Doors:** (See Option No. 200 for Swing-Out Side Door).
2. **Seats** - The minimum seating arrangement shall be as follows:

<u><b>Rows</b></u>	<u><b>Seat Capacity</b></u>
1	One (driver) & One (passenger, front)
2	Two (per seat)
3	Three (per seat)

**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**1/2 TON MIN SUV 6-CYLINDER, 7 -PASSENGER**

<b>Series 741B</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Grand Caravan Long</b>	<b>Nissan Quest 3.5 Base</b>	<b>Toyota Sienna CE</b>	<b>Chevrolet Traverse CR14526</b>
Wheelbase, inches	119.3	121.2	124.02	119.3	119.4
Length, Overall, inches	200.5	202.5	204.13	201	200.7
GVWR, pounds	5820	7,000	5,820	5,690	6,411
Engine, Displacement, liters	3.5L	3.3L V-6 FFV *	3.5L V-6 E85	3.5L	LLT 3.6L V-6 SIDI
Engine, HP	180	175	235	266	294
Engine, TORQUE	210	205	240	245	TBD
Transmission, Automatic	Automatic	A40D	A4OD	A50D	6 speed
Tire Size & Load Range	As Shown	P225/65R16	P225/65R16	P215/65R16	P245/70R17
Rim Size, inches	As Shown	A40D	6.5	6.5	7.0
Emissions Certification	As Shown	NAA/BIN 5	ULEV	ULEV 2 Bin 5	ULEV 2 Bin 5

**\* Note:** This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

**1. Sliding Doors:** (See Option No. 200 for Swing-Out Side Door). (Option 200 is not available from Nissan.)

**2. Seats -** The minimum seating arrangement shall be as follows:

<u><b>Rows</b></u>	<u><b>Seat Capacity</b></u>
1	One (driver) & One (passenger, front)
2	Two (per seat)
3	Three (per seat)

**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**1/2 TON FULL SIZE PASSENGER VAN  
8-CYLINDER, 8-PASSENGER**

<b>Series 750C</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E150 FFV E85</b>	<b>Chevrolet *E85 G13406/Express</b>	<b>GMC HG13406 *E85 Savana</b>
Wheelbase, inches	135	138	135	135
Approximate Payload Allowance	2010	2,820	1,983	1,983
Length, Overall, inches	216	216.7	224.1	224.1
GVWR, pounds	7200	8,820	7,200	7,200
Engine, Displacement, liters	4.6L	4.6L V-8 <b>FFV *</b>	5.3L V-8 *	5.3L V-8 *
Engine, HP	225	225	301	295
Engine, TORQUE	286	286	325	335
Transmission, Automatic	Automatic	4R70W 4 sp	4 SP OD	4 SP OD
Tire Size & Load Range	As Shown	LT225/75R16E	P245/75R16	P245/75R16
Rim Size, inches	6	6	7	7
Emissions Certification	As Shown	Tier 2 Bin 8 LEV II	Bin 5	Bin 5
<b>Note:</b> This denotes a Flex Fuel Vehicle (FFV) – E85 capable				

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- Swing out Side Door(s):** Sliding (See Option No. 200 for Swing-Out Side Door).
- Seats** - The minimum seating arrangement shall be as follows:

<u>Rows</u>	<u>Seat Capacity</u>
1	One (driver) & One (passenger, front)
2	Two (per seat)
3	Three (per seat)

**b. Chassis**

- Stability Traction Control:** Vehicle must include rollover stability control.

**Additional Options:**

- Option 6 – All Wheel Drive - (GMC)**

**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**1 TON FULL SIZE PASSENGER VAN  
8-CYLINDER, GASOLINE, 12-PASSENGER**

<b>Series 755C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E350 FFV E85</b>	<b>Chevrolet/GMC CG33406/Express</b>
Wheelbase, inches	135	138	135
Approximate Payload Allowance, pounds	2,882	3546	3,679
Overall Length, inches	212	212	224.1
GVWR, pounds	9,400	9400	9,600
Engine, Displacement, liters	As Shown	5.4L <b>FFV *E85</b>	6.0L V-8
Engine, HP	255	225	323
Engine, TORQUE	350	350	373
Transmission, Automatic	Automatic	4R75E 4 speed	4- Speed Automatic
Tire Size & Load Range	As Shown	LT225/75R16E	LT225/75R16E
Rim Size, inches	As Shown	7	6.5
Emissions Certification	As Shown	LEV	LEV
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. Sliding (See Option No. 200 for Swing-Out Side Door).

**NOTE: If not standard manufacturer's**

**b. Chassis**

1. **Stability Traction Control:** Vehicle must include rollover stability control.

**C.5. PASSENGER VANS, LIGHT-DUTY (continued):** Refer to General Requirements, Preceding Each Group.

**1 TON FULL SIZE PASSENGER VAN  
8-CYLINDER, DIESEL, 12-PASSENGER**

<b>Series 755D</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E350 FFV E85</b>
Wheelbase, inches		138
Approximate Payload Allowance		2810
Length, Overall, inches		216.7
GVWR, pounds		8800
Engine, Displacement, liters		5.4L V8
Engine, HP		255
Engine, TORQUE		350
Transmission, Automatic		4 speed
Tire Size & Load Range		LT 225/75Rx16E
Rim Size, inches		7
Emissions Certification		LEV II
<b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable		

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. Sliding (See Option No. 200 for Swing-Out Side Door).

**NOTE: If not standard manufacturer's**

**b. Chassis**

1. **Stability Traction Control:** Vehicle must include rollover stability control.

**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**1 TON FULL SIZE EXTENDED PASSENGER VAN  
8-CYLINDER, GASOLINE, 15-PASSENGER**

<b>Series 760C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E350 FFV E85</b>	<b>Chevrolet/GMC CG33706/Express</b>
Wheelbase, inches	138	138	155
Approximate Payload Allowance, pounds	2990	2,990	3,351
Overall Length, inches	232	236.7	244.1
GVWR, pounds	9,250	9,300	9,600
Engine, Displacement, liters	5.4L	5.4L (Both FFV) * E85	6.0LV-8
Engine, HP	255	255	323
Engine, TORQUE	350	350	373
Transmission, Automatic	Automatic	4Spd Auto	4-speed Automatic
Tire Size & Load Range	As Shown	LT245/75R16E	LT225/75R16E
Rim Size, inches	6	7	6.5
Emissions Certification	As Shown	LEV II	LEV
* <b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable			

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- Cargo Door:** Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door).

**NOTE: If not standard manufacturer's**

- Color:** Limited number of standard colors available.

**b. Chassis**

- Stability Traction Control:** Vehicle must include stability control.

**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**NEW SERIES**  
**1 Ton Full size extended passenger van**  
**8- Cylinder, 15- Passenger**

<b>Series 760D</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC G33706</b>
Wheelbase, inches	138	155
Approximate Payload Allowance, pounds	3,426	3,426
Overall Length, inches	232	244.1
GVWR, pounds	9,250	9,600
Engine, Displacement, liters	5.4	6.0L V-8
Engine, HP	255	323
Engine, TORQUE	350	373
Transmission, Automatic	Automatic	MT1
Tire Size & Load Range	As Shown	LT245/75R16E
Rim Size, inches	6	6.5
Emissions Certification	As Shown	LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 2. Cargo Door:** Right side, Swing-Out Panel (See Option No. 201 for Sliding Side Door).

**NOTE: If not standard manufacturer's**

**b. Chassis**

- 1. Stability Traction Control:** Vehicle must include stability control.

**C.5. PASSENGER VANS, LIGHT-DUTY (continued):** Refer to General Requirements, Preceding Each Group.

**EXTENDED HEIGHT 8 PASSENGER VAN  
DIESEL**

<b>Series 770 D</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge &amp; Freightliner Sprinter 2500</b>
Interior Height	73	76.4
Wheelbase, inches	140	144
Approximate Payload Allowance, pounds	3,845	2,995
Overall Length, inches	222	232.5
Length, Cargo, inches	128	128.5
GVWR, pounds	8,550	8,550
Engine, Displacement, liters	As Shown	3.0 L V-6 Turbo
Engine, HP	154	154
Engine, TORQUE	243	280
Transmission, Automatic	Automatic	5 speed auto with Autostick
Tire Size & Load Range	As Shown	LT245/75R16
Rim Size, inches	As shown	6.5J x 16
Emissions Certification	As Shown	HDV / ULEV1

**a. Chassis**

- 1. Stability Traction Control:** Vehicle must include rollover stability control.

**b. Options:**

- 1. Increased to 12 passengers.** The following changes are for **12 passenger** option. See Option No. 136

<b>Wheelbase, inches</b>	<b>170</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,602</b>
<b>Overall Length, inches</b>	<b>273.2</b>

**Additional Options:**

- 1. Option 48: Engine, Larger Displacement**

**NOTE:** See options 137 and 138 for wheelchair options.



**C.5. PASSENGER VANS, LIGHT-DUTY (continued): Refer to General Requirements, Preceding Each Group.**

**EXTENDED HEIGHT 14 PASSENGER VAN  
GASOLINE**

<b>Series 771 G</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Supreme Corp. Sentinel High Top</b>
Interior Height	75	75.5
Wheelbase, inches	138	138
Approximate Payload Allowance, pounds	3,426	3426
Overall Length, inches	231	231
Length, Cargo, inches	129	129
GVWR, pounds	9,250	9,250
Engine, Displacement, liters	5.4	5.4
Engine, HP	255	255
Engine, TORQUE	350	350
Transmission, Automatic	Automatic	Automatic
Tire Size & Load Range	As Shown	As Shown
Rim Size, inches	6	6
Emissions Certification	As Shown	As Shown

**a. Chassis**

1. **Stability Traction Control:** Vehicle must include rollover stability control.

**b. Options:**

2. **Option 137. Wheelchair Lift** securement for one wheelchair position. See Section I Special Equipment
3. **Option 138 Wheelchair Lift:** securement for two wheelchair positions. See Section I Special Equipment
4. **Option 139. Wheelchair Vehicle Farebox:** See Section I Special Equipment
5. **Option 141: Paratransit Body:** securement for two wheelchair positions with 8 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>138</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>240</b>

6. **Option 142: Paratransit Body:** securement for two wheelchair positions with 12 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>158</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>264</b>

7. **Option 143: Paratransit Body:** securement for two wheelchair positions with 16 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>176</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>300</b>

8. **Option 144: Wheelchair Vehicle Fixed Route Options;** Destination Signs, Public Information System And Stop Request Chime. See Section I Special Equipment

**Additional Options:**

1. Option 48: Engine, Larger Displacement

C.5. **PASSENGER VANS, LIGHT-DUTY (continued):** Refer to General Requirements, Preceding Each Group.

**EXTENDED HEIGHT 14 PASSENGER VAN  
DIESEL**

<b>Series 771 D</b>		
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Supreme Corp. Sentinel High Top</b>
Interior Height	75	75.5
Wheelbase, inches	138	138
Approximate Payload Allowance, pounds	3,426	3426
Overall Length, inches	231	231
Length, Cargo, inches	129	129
GVWR, pounds	9,250	9,250
Engine, Displacement, liters	6.0	6.0
Engine, HP	235	235
Engine, TORQUE		
Transmission, Automatic	Automatic	Automatic
Tire Size & Load Range	As Shown	As Shown
Rim Size, inches	6	6
Emissions Certification	As Shown	As Shown

a. Chassis

1. **Stability Traction Control:** Vehicle must include rollover stability control.

b. Options:

2. **Option 137. Wheelchair Lift** securement for one wheelchair position. See Section I Special Equipment
3. **Option 138 Wheelchair Lift:** securement for two wheelchair positions. See Section I Special Equipment
4. **Option 139. Wheelchair Vehicle Farebox:** See Section I Special Equipment
5. **Option 141: Paratransit Body:** securement for two wheelchair positions with 8 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>138</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>240</b>

6. **Option 142: Paratransit Body:** securement for two wheelchair positions with 12 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>158</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>264</b>

7. **Option 143: Paratransit Body:** securement for two wheelchair positions with 16 ambulatory passengers. See Section I Special Equipment

<b>Wheelbase, inches</b>	<b>176</b>
<b>Approximate Payload Allowance, pounds</b>	<b>2,550</b>
<b>Overall Length, inches</b>	<b>300</b>

**8. Option 144: Wheelchair Vehicle Fixed Route Options;** Destination Signs, Public Information System and Stop Request Chime. See Section I Special Equipment

**C.6. LIGHT-DUTY TRUCKS:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The following items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below any table are in lieu of, or in addition to, the following general requirements for Light-duty Trucks:

**a. Body:** Pickup or Cab and Chassis.

1. **Pickup Bodies:** Straight / fleet side with steel cargo floors. Select Option No. 26 to delete Bed (Box).

**b. Cab:** Conventional, Extended, or Crew Cab.

1. **Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer [Exception: Units with 8,600 lb. GVWR and up.]
2. **Air Conditioning:** Manufacturer's standard.
3. **AM/FM Radio:** Manufacturer's standard.
4. **Auxiliary Power Outlet:** 12 volt.
5. **Front Seat: Cloth:** To be 40/20/40 split bench (except for Series 842, 843, and 844 to be 40/60). (Option No. 258 is for vinyl seats.)
6. **Jack, Handle, and Lug Wrench.**
7. **Power Package:** Includes power windows, power locks, power mirrors, cruise control, and tilt steering wheel. (Option No. 87 to delete entire power package) (Option No.87 is not available from Nissan.)

NOTE: Rearview Mirrors shall be the largest factory installed available. Shall be installed on left and right sides through Series 864C; then manual adjustments through remaining Series unless Option 76 is ordered.

8. **Sun Visors:** Dual.

**c. Chassis:**

1. **Automatic Transmission**
2. **Brakes, ABS, required,** Manufacturer's standard; front disc, 2- or 4- wheel.
3. **Bumper (Full Width of Truck):** Installed front and rear-step bumper shall be manufacturer's standard (except cab and chassis units - See Sections F., G., and H. for body specifications).
4. **Spare Wheel and Tire:** Standard OEM major Brand name for Full Size. (See Option No. 116 for All Terrain Tires).
5. **Tires (including Spare):** Steel belted radial, all position, tubeless highway tread. Tires with raised white lettering are acceptable, if mounted with the black lettering facing away from vehicle.

**d. Cargo Weight (approximate payload allowance):**

1. **Cargo Weight:** Deduct the cargo body weight from the body and payload allowance shown. The remainder is the cargo weight limit for the standard, base truck.
2. **Payload Allowance:** Weight of cargo that may be carried by the standard, base vehicle. It is found by adding the weight of the driver and all passengers (150 pounds each) to the curb weight and subtracting the total from the GVWR.

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**MID-SIZE REGULAR CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
SHORT BED 1/2 TON**

<b>Series 842B</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford Ranger (4X2)</b>	<b>Chevrolet GMC Colorado S15403</b>
Wheelbase, inches	109	112	111.20
Approximate Payload Allowance, pounds	1,410	1,260	1,652
Length, Overall, inches	188	189.4	192.8
Length, Cargo, inches	72	72.7	72.8
GVWR, pounds	4,650	4,380	4,850
Engines, Displacement, liters	As Shown	2.3L I4	2.9L 4 Cyl 3.5L 5 Cyl
Engines, Net HP	148	143	189
Engines, TORQUE	180	154	190
Transmission, Automatic	Automatic	5-speed OD	M30
Tire Size & Load Range	As Shown	P225/70R15	P225/75R15
Rim Size, inches	As Shown	6.0	6.5
Emissions Certification	As Shown	LEV	LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Front Seat:** 40/60 Split bench front seat.

**NOTE:** If not standard manufacturer's

**Additional Options:**

- 1, Option 48 – Engine, Larger Displacement (Chevrolet Colorado S15403, 3.75L 5Cyl, Bin 5)**

**C.6. LIGHT-DUTY TRUCKS(continued): Refer to General Requirements, Preceding Each Group.**

**MID-SIZE CREW CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
5/6-CYLINDER, SHORT BED 1/2 TON 4 Full Door**

<b>Series 843B</b>						
<b>ITEM</b>	<b>Minimum 4 DR Requirements</b>	<b>Chevrolet Colorado CS15643</b>	<b>Dodge 4 DR Dakota ST Crew Cab</b>	<b>Nissan Frontier SE Crew Cab 4x2</b>	<b>Toyota Tacoma Double cab</b>	<b>Ford Sport Trac</b>
Wheelbase, inches	125	126	131.3	125.9	127.8	130.5
Approximate Payload Allowance, pounds	1,416	1,610	1,630	1,482	1,505	1,400
Length, Overall, inches	As Shown	207.1	218.8	205.5	208.1	210.2
Length, Cargo, inches	50	61.1	67.9	61.8	60.3	49.6
GVWR, pounds	5000	5000	6010	5,730	5,350	6,100
Engines, Displacement, liters	As Shown	3.7L 5 Cyl	3.7L V-6 4.7 FFV*	4.0L V-6	4.0L V-6	4.0L V-6
Engines, Net HP	As Shown	242	210	261	236	210
Engines, Net TORQUE	225	242	235	281	266	254
Transmission, Automatic	Automatic	M30	4-speed OD	5 speed	5 speed	5 speed
Tire Size & Load Range	As Shown	P225/75R15	P245/70R16BSW	P265/75R16	P245/75R16	P235/70R16
Rim Size, inches	As Shown	7	7	7	7	
Emissions Certification	As Shown	Bin 5	NAA / BIN 5	LEV2	LEV	

**\*NOTE: Dodge Dakota has E85 FLEX FUEL VEHICLE V8 option 4.7 L V8 302 HP AND 329 NET TORQUE.**

**See Option 48.**

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Seats:** Seating shall be provided for a minimum for 4 persons, including driver (See Option No. 98 for Rear Seat Delete Option \* Note: Not available from GM or Nissan).
2. **Front Seat:** 40/60 Split bench front seat. Nissan and Ford front seats are only bucket.

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**MID-SIZE EXTENDED CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
SHORT BED 1/2 TON**

<b>Series 844B</b>						
<b>ITEM</b>	<b>Minimum Req.</b>	<b>Toyota Tacoma Access Cab 7164</b>	<b>Chevrolet Colorado CS15653</b>	<b>Dodge Dakota Club Cab</b>	<b>Ford Ranger (4X2)</b>	<b>Nissan Frontier KC SE 4 x 2</b>
Wheelbase, inches	127.2	127.8	126	131.3	125.7	125.9
Approximate Payload Allowance, pounds	1,250	1,505	1,634	1,720	1,260	1,435
Length, Overall, inches	202.9	208.1	207.1	218.8	203.6	205.5
Length, Cargo, inches	72	73.5	72.8	78	72.7	61.8
GVWR, pounds	5,000	4,850	5,000	6,010	4,760	5,589
Engines, Displacement, liters	As Shown	4.0L V-6	3.7L 5 Cyl	3.7L V-6 4.7 FFV*	4.0L V-6	4.0L V-6
Engines, Net HP	207	236	242	210	207	261
Engines, Net TORQUE	225	266	242	235	238	281
Transmission, Automatic	Automatic	5 speed Auto.	M30	4-speed OD	5 speed auto	5 speed auto
Tire Size & Load Range	As Shown	P245/R7516	P205/75R15	P245/70R16	P225/70R15SL	P265/70R16
Rim Size, inches	As Shown	6.0	7	7	6.0	7
Emissions Certification	As Shown	LEV 2 Bin 5	Bin 5	NAA/ BIN 5	LEV TIER 2 BIN 9	LEV2 LEV

**\*NOTE: Dodge Dakota has FLEX FUEL VEHICLE V8 option 4.7 L V8 302 HP AND 329 NET TORQUE.**

**See Option 46.**

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Seats:** Seating shall be provided for a minimum for 4 persons, including driver (See Option No. 98 for Rear Seat Delete Option\* Note: Not available from GM and Nissan).
2. **Front Seat:** Bucket or split bench.

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1/2 TON REGULAR CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
6- AND 8-CYLINDER, SHORT BED**

<b>Series 855B Series 855C</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge DS1L61</b>	<b>Ford F 150</b>	<b>Toyota Tundra Regular Cab 8202/8226</b>	<b>Chevrolet Silverado CC10703 *E85</b>	<b>GMC Sierra TC10703*</b>
Wheelbase, inches	119 119	119 120	126 126	128.3 128.3	119 119	119 119
Approximate Payload Allowance, pounds	1,800 1,730	1,800 1,490	1,700 1,700	1590 1750	2,086 1,951	2,086 1,951
Length, Overall, inches	204 204	209 209	211.2 211.2	209.8 209.8	205.6 205.6	205.6 205.6
Length, Cargo, inches	75 75	76 76	78.8 78.8	78.7 78.7	78.7 78.7	78.7 78.7
GVWR, pounds	6,100 6,100	6,025 6,600	6,450 6,450	6,200 6,200	6,400 6,400	6,400 6,400
Engines, Displacement, liters	V-6 V-8	3.7L V-6 4.7L V-8 *	5.4L V8 FFV *E85	4.0L V6 4.7L V8***	4.3L V6 4.8L V-8 5.3L V-8 *85 FFV	4.3L V6 4.8L V-8 5.3L V-8 *85 FFV
Engines, Net HP	195 231	210 310	231 300	236 276	195 295 315*	195 295 315*
Engines, Net TORQUE	235 295	235 330	293 365	266 313	285 305 338*	285 305 338*
Transmission, Automatic	Automatic Automatic	4-Speed OD 5-Speed OD	4 Speed OD 6 Speed OD	5 Speed OD 5 Speed OD	4-speed OD 6-speed OD	4-speed OD 6-speed OD
Tire Size & Load Range	As Shown As Shown	245/70R17 245/70R17	P235/70R17 P235/70R17	P255/70R18 P255/70R18	P245/70R17 P245/70R17	P245/70R17 P245/70R17
Rim Size, inches	As Shown As Shown	7 7	7 7	8 8	7.5 7.5	7.5 7.5
Emissions Certification	As Shown As Shown	NAA/BIN 5 NAA/BIN 5	LEV Tier2 Bin8 LEV Tier2 Bin8	ULEV2 ULEV 2	Bin 5	Bin 5
<b>Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable						

**\*\* GM Ethanol/85 available as a no charge option with 5.3L engine.**

**\*\*\* Dodge 4.7L V8 is Flex Fuel Capable. Available as a no charge option**

**\*\*\*Ford 5.4L V8 is E85 Fuel Capable.**

**\*\*\*Toyota 4.7L V-8- is E85Fuel Capable.**

**Additional Options:**

1. Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 4.8L V8, 5.3L V8\* E85)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1/2 TON, REGULAR CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
8-CYLINDER, LONG BED**

<b>Series 861C</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford F150</b>	<b>Chevrolet Silverado/CC10903 *E85</b>	<b>Dodge Ram DS1L62</b>	<b>Toyota Tundra 8226</b>	<b>GMC Sierra TC10903 *E85</b>
Wheelbase, inches	133	144.5	133	140	145.7	133
Approximate Payload Allowance, pounds	1,850	1,900	2,002	1,750	1,845	2,002
Length, Overall, inches	224	229.8	224.5	226.9	228.7	224.5
Length, Cargo, inches	97	97.4	97.6	96.3	97.6	97.6
GVWR, pounds	6,400	6,750	6,400	6,600	6800	6,400
Engines, Displacement, liters	As Shown	5.4LV8 <b>FFV * E85</b>	5.3L V-8 *E85 FFV	4.7L V-8 *	4.7LV-8	5.3L V-8 *E85 FFV
Engines, HP	231	231 300	315*	310	271	315*
Engines, TORQUE	293	293 365	338*	330	313	338*
Transmission, Automatic	Automatic	4-speed 6-speed	6-speed OD	5-Speed OD	5-speed OD	6-speed OD
Tire Size & Load Range	As Shown	P235/70R17	P245/70R17	245/70R17	P255/70R18	P245/70R017
Emissions Certification	As Shown	LEV Tier2Bin8	Bin 5	NAA/BIN 8A	ULEV 2	Bin 5
<b>* Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable						

**Addition options:**

- Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 5.3L V8\* E85  
Toyota Tundra 5.4L V8 FFV)**



**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1/2 TON  
EXTENDED CAB PICKUP TRUCK  
SINGLE REAR WHEEL  
5 PASSENGER SHORT BED**

<b>Series 862C</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado *E85 CC10753 (4-Door)</b>	<b>Dodge Ram DS 1L41 (4-Door)</b>	<b>Ford F 150 (4-Door)</b>	<b>Nissan Titan KC SE 4x2</b>	<b>Toyota Tundra Double Cab 8239</b>
Wheelbase, inches	128	143.5	140	126"	139.8	145.7
Approximate Payload Allowance, pounds	1,596	1,828	1,710	1,610	2,013	1535
Length, Overall, inches	218	229.90	229	229.8	224.6	228.7
Length, Cargo, inches	74	69.3	76.3	78.8	79.1	78.7
GVWR, pounds	6,200	6,400	6,700	6,700	7,000	6700
Engines, Displacement, liters	As Shown	4.3L V8 4.8L V8 5.3L V8 *E85 FFV	4.7L V8*	4.6L 2valve V-8 5.4L V8 FFV *	6.5L	4.7L V-8
Engines, HP	231	195 295 315*	310	231  300	317	271
Engines, TORQUE	295	285 305 338*	330	293  365	385	313
Transmission, Automatic	Automatic	4-speed OD 6-spped OD	5-speed OD	4-speed 6-speed	5 speed OD	5 Speed OD
Tire Size & Load Range	As Shown	P245/70R17	P245/70R17	P235/70R17	P265/70R17	P255/70R18
Rim Size, inches	As Shown	7.5	7	7	8	8
Emissions Certification	As Shown	Bin 5	NAA / BIN 8A	LEV Tier 2 Bin 8	Tier 2 Bin 8Z	ULEV 2 Bin 5
<b>*Note:</b> This denotes a FLEX FUEL VEHICLE (FFV) – E85 capable						

**\*\*GM Ethanol/ E\*% available as a no charge option with 5.3L engine.**

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Seats:** Seating shall be provided for a minimum of 5 persons, including driver (See Option No. 98 for Rear Seat Delete Option. This option is not available from Nissan).

1. **Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 5.3L V8\* E85)**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1/2 TON EXTENDED CAB PICKUP TRUCK  
5 PASSENGER, LONG BED  
SINGLE REAR WHEEL**

<b>Series 863C</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado *E85 CC10953 (4-Door)</b>	<b>Ford F 150 4-Door</b>	<b>GMC Sierra *E85 TC10953 (4-Door)</b>
Wheelbase, inches		143.5	163	143.5
Width inches			78.9	
Length, Cargo Inches		97.6		97.6
Length inches		249	248.4	249
Displacement liters		5.3L V8 *E85 FFV	4.6L V8	5.3L V8 *E85 FFV
Engine HP		315*	248	315*
Torque		338*	294	338*
Transmission, Automatic		6-speed OD		6-speed OD
Tire size & load Range		P245/70R17	P235/70Rx17	P245/70R17
Emission Certification		SULED Bin 5	Tier 2 Bin 8 LEV II	SULED Bin 5
<b>*Note:</b> This denotes a FLEX FUEL VEHICLES (FFV) – E85 capable				

**\*\* GM Ethanol/ E85 available as a no charge option with 5.3L engine.**

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. **Seats:** Seating shall be provided for a minimum of 5 persons, including driver (See Option No. 98 for rear seat Delete Option \* Note: GM does not have this delete option).
2. **See Option 46** to change the engine.

**Addition Options:**

1. **Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 5.3L V8\* E85)**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1/2 TON, CREW CAB PICKUP TRUCK  
6 PASSENGERS, SHORT BED  
SINGLE REAR WHEEL**

<b>Series 864C</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Ram Crew Cab</b>	<b>Chevrolet Silverado *E85 CC10953 (4-Door)</b>	<b>Ford F150 4-Door</b>	<b>Nissan Titan XE Crew Cab 4x2</b>	<b>Toyota Tundra Crew Max 8259</b>	<b>GMC Sierra *E85 tc10953 (4-Door)</b>
Wheelbase, inches	138	140	143.5	145	139.8	145.7	143.5
Approximate Payload Allowance, pounds	1,400	1,650	1,828	1,580	2,062	1470	1,828
Length, Overall, inches	217	227.5	229	217.8	224.6	228.7	229
Length, Cargo, inches	67	67.4	69.3	67	67.3	66.7	69.3
GVWR, pounds	6,422	6,800	6,800	6,800	7,101	6800	6,800
Engines, Displacement, liters	As Shown	4.7L V-8 *	4.3L V-6 4.8L V08 5.3L V-8 *85 FFV	4.6L3 valve V8  5.4L V8 FFV E85	6.5L	4.7L V8	4.3L V-6 4.8L V08 5.3L V-8 *85 FFV
Engines, HP	271	310	285	231  300	317	271	285
Engines, TORQUE	313	330	305	293  365	385	313	305
Transmission, Automatic	Automatic	5 Speed OD	4-speed OD	6 speed	5-speed OD	5-Speed OD	4-speed OD
Tire Size & Load Range	Single Rear	P245/70R17	P245/70R17	P255/65R17	P265/70R17	P275/65R18	P245/70R17
Rim Size, inches	As Shown	8	7.5	7	8	8	7.5
Emissions Certification	As Shown	NAA / Bin 8A	Bin 5	LEV Tier 2 Bin 8	Tier 2-Bin8z	ULEV 2	Bin 5
<b>*Note:</b> This denotes a FLEX Fuel Vehicle (FFV) – E85 capable							

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- Seats:** Seating shall be provided for a minimum of 6 persons, including driver (See Option No. 98 for rear seat Delete Option. This option is not available from Nissan).

**b. Special Options:** Reference Option 47 when purchasing 46L 3valveV6 from FORD.

- Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 5.3L V8\* E85 / 6.2L V8 E85**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 3/4-TON, CREW CAB PICKUP TRUCK  
6 PASSENGERS, GASOLINE AND DIESEL, SHORT BED  
SINGLE REAR WHEEL**

<b>Series 866C Series 866D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge Ram Mega Crew Cab 4-Door</b>	<b>Chevrolet Silverado CC20743 (4-Door)</b>	<b>Ford F 250SD 4-Door</b>	<b>GMC Sierra TC20743 (4-Door)</b>
Wheelbase, inches	153 153	160.5 160.5	153.0 153.0	156.2 156.2	153.0 153.0
Approximate Payload Allowance, pounds	3,100 2,995	2770 1940	3,345 2,634	2,980 2,670	3,345 2,634
Length, Overall, inches	237 237	247.9 247.9	239.9 239.9	246.2	239.9 239.9
Length, Cargo, inches	78 78	80.6 80.6	78.9 78.9	82.4 82.4	78.9 78.9
GVWR, pounds	9,200 9,200	8,800 9000	9,200 9,200	9,200 9,800	9,200 9,200
Engines, Displacement, liters	As Shown AS Shown	5.7L V8 6.7L I-6 DIESEL	6.0L V-8 6.6L V-8**	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8**
Engines, Net HP	300 310	345 350	353 365 **	300 350	353 365 **
Engines, TORQUE	365 560	375 650	373 660 **	365 650	373 660 **
Transmission, Automatic	Automatic Automatic	5 Speed OD 6 Speed OD	6-speed OD 6-speed OD	5-speed auto	6-speed OD 6-speed OD
Tire Size & Load Range	Single Rear Single Rear	LT265/70R17E BSW LT265/70R17E BSW	LT245/75R16 LT245/75R16	LT245/75R17E LT245/75R17E	LT245/75R16 LT245/75R16
Emissions Certification	As Shown As Shown	NAS (HD-08LEV II) NAS (HD-07LEV II)	LEV LEV	LEV LEV	LEV LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Cab:**

1. **Seats:** Seating shall be provided for a minimum of 6 persons, including driver (See Option No. 98 for Rear Seat Delete Option).

**Additional Options:**

1. **Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 3/4 TON EXTENDED CAB PICKUP TRUCK  
5 PASSENGERS, GASOLINE AND DIESEL,  
LONG BED SINGLE REAR WHEEL**

<b>Series 868C Series 868D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC CC20953 (4-Door)</b>	<b>Dodge DR2L42 4-Door</b>	<b>Ford F 250SD 4-Door</b>	<b>GMC TC20953 (4-Door)</b>
Wheelbase, inches	157 157	157.5 157.5	160.5 160.5	158 158	157.5 157.5
Approximate Payload Allowance, pounds	3,363 3,174	3,363 3,918	3,210 3,100	3,030 2,730	3,363 3,918
Length, Overall, inches	246 246	249 249	249.7 249.7	248.0	249 249
Length, Cargo, inches	97 97	97.6 97.6	97.6 97.6	98.6 98.6	97.6 97.6
GVWR, pounds	9,000 9,200	9,200 9,200	8,800 9,000	9,200 9,800	9,200 9,200
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8**	5.7L V-8 6.7L I-6 DIESEL	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8**
Engines, HP	300 310	353 365**	345 350	300 350	353 365**
Engines, TORQUE	360 570	373 660 **	375 650	365 650	373 660 **
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD**	5-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD**
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT245/70R17E LT245/70R17E	LT245/75R17E LT245/75R17E	LT245/75R16 LT245/75R16
Emissions Certification	As Shown As Shown	Bin 5	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	Lev II ULEV	Bin 5

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Cab:**

1. **Seats:** Seating shall be provided for a minimum of 5 persons, including driver (See Option No. 98 for Rear Seat Delete Option---- Note: GM does not have this delete option).

**Additional Options:**

1. **Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 3/4 TON EXTENDED CAB PICKUP TRUCK  
5 PASSENGERS, GASOLINE AND DIESEL, SHORT BED  
SINGLE REAR WHEEL**

<b>Series 869C Series 869D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC20753 (4-Door)</b>	<b>DodgeDR2L41 4-Door</b>	<b>Ford F 250SD 4-Door</b>	<b>GMC Sierra TC20753 (4-Door)</b>
Wheelbase, inches	140 140	143.5 143.5	140.5 140.5	142 142	143.5 143.5
Approximate Payload Allowance, pounds	3,922 3,271	3,580 3,271	3210 3100	2,990 2,650	3,580 3,271
Length, Overall, inches	227 227	227.7 227.7	227.7 227.7	231.2 231.2	227.7 227.7
Length, Cargo, inches	75 75	78.7 78.7	75 75	82.4 82.4	78.7 78.7
GVWR, pounds	8,800 9,200	9,200 9,200	8,800 9,000	9,000 9,600	9,200 9,200
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8**	5.7L V-8 6.7L I-6 DIESEL	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8**
Engines, HP	300 310	353 365 **	345 350	300 350	353 365 **
Engines, TORQUE	350 560	373 660 **	375 650	365 650	373 660 **
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD **	5-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD **
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT245/70R17E LT245/70R17E	LT245/75R17 LT245/75R17	LT245/75R16 LT245/75R16
Emissions Certification	As Shown As Shown	Bin 5	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	LEV II ULEV	Bin 5

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Cab:**

- Seats:** Seating shall be provided for a minimum of 5 persons, including driver (See Option No. 98 for rear seat Delete Option).

**Additional Options:**

- Option 48: Engine,** Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 3/4 TON, REGULAR CAB AND CHASSIS \***  
**GASOLINE or DIESEL**  
**SINGLE REAR WHEEL**

<b>Series 870C Series 870D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC20903</b>	<b>Dodge DR2L62</b>	<b>Ford F 250SD</b>	<b>GMC Sierra TC20903</b>
Wheelbase, inches	133 133	133 133	140.5 140.5	137 137	133 133
Effective cab to axle, inches	55 55	55.9 55.9	56 56	56.3	55.9 55.9
Approximate Payload Allowance, pounds	3,000 3,000	4,413 3,742	3210 3,100	3,010 2,700	4,413 3,742
GVWR, pounds	8,800 9,200	9,200 9,200	8800 9000	8,800 9,400	9,200 9,200
Engines, Displacement, liters	As Shown AS Shown	6.0L V-8 6.6L V8**	5.7L V-8 6.7L I-6 DIESEL	5.4L V-8 6.4L V8 DIESEL	6.0L V-8 6.6L V8**
Engines, HP	300 310	353 365 **	345 350	300 350	353 365 **
Engines, TORQUE	365 570	373 660 **	375 650	365 650	373 660 **
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD**	5-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD**
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT245/70R17E LT245/70R17E	LT245/75R17E LT245/75R17E	LT245/75R16 LT245/75R16
Rim Size, inches	As Shown As Shown	6.5 6.5	7.5 7.5	7 7	6.5 6.5
Emissions Certification	As Shown As Shown	Bin 5	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	LEV II ULEV	Bin 5
* <b>NOTE:</b> See Optional Truck Bodies.					

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Cab:**

- Rearview Mirrors, Exterior, Trailer Tow/Camper Type, Both Sides:** Each mirror shall be approximately 6 inch by 9 inch and equipped with extension arms, and manually adjusted.

**Additional Options:**

- Option 48:** Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 3/4 TON REGULAR CAB PICKUP TRUCK  
GASOLINE or DIESEL,  
LONG BED SINGLE REAR WHEEL**

<b>Series 872C Series 872D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC20953 (4-Door)</b>	<b>Dodge DR2L62</b>	<b>Ford F 250SD</b>	<b>GMC Sierra TC20953 (4-Door)</b>
Wheelbase, inches	133 133	133 133	140.5 140.5	137 137	133 133
Approximate Payload Allowance, pounds	3,000 3,000	3,694 3,591	2590 3290	3,010 2,700	3,694 3,591
Length, Overall, inches	222 222	222.1 222.1	249.7 249.7	227	222.1 222.1
Length, Cargo, inches	97 97	97.6 97.6	97.6 97.6	98.6 98.6	97.6 97.6
GVWR, pounds	8,650 8,800	9,200 9,200	8,650 9,000	9,000 9,400	9,200 9,200
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8**	5.7L V-8 6.7L I-6 DIESEL	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8**
Engines, HP	300 310	353 365 **	345 350	300 350	353 365 **
Engines, TORQUE	360 570	373 660 **	375 650	365 650	373 660 **
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	5-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT245/70R17E LT245/70R17E	LT245/75R17E LT245/75R17E	LT245/75R16 LT245/75R16
Rim Size, inches	As Shown As Shown	6.5 6.5	7.5 7.5	7 7	6.5 6.5
Emissions Certification	As Shown As Shown	Bin 5	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	LEV II ULEV	Bin 5

**Additional Options:**

- Option 48:** Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)



**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1 TON REGULAR CAB AND CHASSIS \*  
GASOLINE AND DIESEL  
DUAL REAR WHEEL**

<b>875C 875D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge HD 3500</b>	<b>Chevrolet Silverado CC31003</b>	<b>Ford F 350SD</b>	<b>GMC Sierra TC31003</b>
Wheelbase, inches	137 137	143.5 143.5	137 137	140.8 140.8	137 137
Effective cab to axle, inches	60 60	60 60	60.4 60.4	60 60	60.4 60.4
Approximate Payload Allowance, pounds	6,192 5,695	5670 6650	6,173 6,101	7,230 6,270	6,173 6,101
GVWR, pounds	11,400 11,400	12,500 12,500	11,400 11,400	13,000	11,400 11,400
Engines, Displacement, liters	As Shown As Shown	5.7 V-8 6.7L V-8 DIESEL	6.0L V-8 6.6L V-8 Diesel	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8 Diesel
Engines, HP	300 310	330 375	353 365	300 350	353 365
Engines, TORQUE	365 570	305 610	373 660	365 650	373 660
Transmission, Automatic	Automatic Automatic	5-Speed auto 6-Speed auto	6-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD
Tire Size & Load Range	Dual Rear Dual Rear	LT235/80R17E BSW All-season	LT215/85R16D LT215/85R16D	LT245/75RX17E LT245/75RX17E	LT215/85R16D LT215/85R16D
Rim Size, inches	As Shown As Shown	6	6.5 6.5	6 6	6.5 6.5
Emissions Certification	As Shown As Shown	NAA (HD-04) NAS [Opt. HDDC]	Bin 5	LEV II ULEV	Bin 5

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Cab:**

- 1. Rearview Mirrors, Exterior, Trailer Tow/Camper Type, Both Sides:** Each mirror shall be approximately 6 inch by 9 inch and equipped with extension arms, and manually adjusted.

**Additional Options:**

- 1. Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)**
- 2. Option \_\_\_\_: 5F4 for B20% Bio-Diesel fuel on GM's 5yr. 100,000 Powertrain Warranty.**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1 TON REGULAR CAB PICKUP TRUCK  
GASOLINE or DIESEL, LONG BED  
DUAL REAR WHEEL**

<b>Series 876C Series 876D</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Dodge DH 3L62 Diesel</b>	<b>Ford F 350SD</b>	<b>Chevrolet Silverado C30903</b>
Wheelbase, inches	133 133	140.5 140.5	137 137	133 133
Approximate Payload Allowance, pounds	5,590 5,590	4650 5,150	5,560 5,250	5,440 4,779
Length, Overall, inches	226 226	229.7 229.7	227	225 225
Length, Cargo, inches	97 97	97.6 97.6	98.6 98.6	95.9 95.9
GVWR, pounds	11,000 11,500	11,000 11,500	12,000 12,400	11,400 11,400
Engines, Displacement, liters	As Shown As Shown	5.7L V-8 6.7L I-6 DIESEL	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8**
Engines, HP	300 325	330 350	300 350	353 365**
Engines, TORQUE	365 570	375 650	365 650	373 660**
Transmission, Automatic	Automatic Automatic	5-Speed OD 6-speed OD	5 speed auto 5 speed auto	6 speed OD 6 speed OD**
Tire Size & Load Range	Dual Rear Dual Rear	LT235/80R17E LT235/80R17E	LT245/75RX17E LT245/75RX17E	LT245/75RX17E LT245/75RX17E
Rim Size, inches	As Shown As Shown	6 6	6.5 6.5	6.5 6.5
Emissions Certification	As Shown As Shown	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	LEV II ULEV	Bin 5

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1 TON CREW CAB PICKUP TRUCK,  
6-PASSENGER, GASOLINE or DIESEL, LONG BED  
SINGLE REAR WHEEL**

<b>881C 881D</b>				
<b>ITEM</b>	<b>Minimum Requirement</b>	<b>Chevrolet Silverado CC30943</b>	<b>Ford Crew Cab F 350SD</b>	<b>GMC Sierra C30943</b>
Wheelbase, inches	167 167	167 167	172 172	167 167
Approximate Payload Allowance, pounds	3,653 3,030	3,668 3,134	3,820 3510	3,668 3,134
Length, Overall, inches	256 256	258.7 258.7	261.8 261.8	258.7 258.7
Length, Cargo, inches	97 97	98.2 98.2	98.6 98.6	98.2 98.2
GVWR, pounds	9,200 9,200	9,900 9,900	10,200 10,800	9,900 9,900
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8 Diesel	5.4L V-8 6.4L V-8 DIESEL	6.0L V-8 6.6L V-8 Diesel
Engines, HP	300 310	353 365	300 350	353 365
Engines, TORQUE	365 570	373 660	365 650	373 660
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	5-speed auto 5-speed auto	6-speed OD 6-speed OD
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT275/65R18E LT275/65R18E	LT245/75R16 LT245/75R16
Rim Size, inches	As Shown As Shown	6.5 6.5	7 7	6.5 6.5
Emissions Certification	As Shown As Shown	Bin 5	LEV II ULEV	Bin 5

**Additional Options:**

- Option 48:** Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1 TON EXTENDED CAB PICKUP TRUCK,  
5-PASSENGERS, GASOLINE or DIESEL, LONG BED  
SINGLE REAR WHEEL**

<b>882C 882D</b>					
<b>ITEM</b>	<b>Minimum Requirement</b>	<b>Chevrolet Silverado CC30953</b>	<b>Ford Super Cab F350</b>	<b>Dodge Quad Cab DR 3L42</b>	<b>GMC Sierra TC30953</b>
Wheelbase, inches	157 157	157.5 157.5	158 158	160.5 160.5	157.5 157.5
Approximate Payload Allowance, pounds	3,820 3,820	4,071 3,816	3,900 3,490	3330 3580	4,071 3,816
Length, Overall, inches	249 249	249 249	248.0	102.6 102.6	249 249
Length, Cargo, inches	97.6 97.6	98.2 98.2	96	102.6 102.6	98.2 98.2
GVWR, pounds	9,900 9,900	9,900 9,900	10,100 10,600	10100 10100	9,900 9,900
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8 Diesel	5.4L V-8 6.4L V-8 DIESEL	5.7 V-8 6.7IV-6 DIESEL	6.0L V-8 6.6L V-8 Diesel
Engines, HP	300 310	353 365	300 350	350 350	353 365
Engines, TORQUE	360 555	373 660	365 650	650 650	373 660
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	5speed OD 5speed OD	5-Speed OD 6-speed OD	6-speed OD 6-speed OD
Tire Size & Load Range	Single Rear Single Rear	LT245/75R16 LT245/75R16	LT245/75Rx17EBSW LT245/75Rx17EBSW	LT265/70R17E LT265/70R17E	LT245/75R16 LT245/75R16
Rim Size, inches	As Shown As Shown	6.5x16 6.5x16		6	6.5x16 6.5x16
Emissions Certification	As Shown As Shown	Bin 5	LEV II ULEV	NAA (HD-04) NAS [HD-07/LEV II]	Bin 5

**Additional Options:**

- Option 48:** Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE CREW CAB 1 TON PICKUP TRUCK  
6-PASSENGER, GASOLINE or DIESEL, LONG BED  
DUAL REAR WHEEL**

<b>Series 886C Series 886D</b>				
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC30943</b>	<b>Ford F350 SD</b>	<b>GMC Sierra TC30943</b>
Wheelbase, inches	167 167	167 167	172.4 172.4	167 167
Approximate Payload Allowance, pounds	4,800 4,000	4,858 4,191	5,600 5,290	4,858 4,191
Length, Overall, inches	256 256	258.7 258.7	261.1 261.1	258.7 258.7
Length, Cargo, inches	97 97	97.6 97.6	98.6 98.6	97.6 97.6
GVWR, pounds	11,400 11,400	11,400 11,400	12,400 13,000	11,400 11,400
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8 Diesel	5.4L V-8 6.0L V-8 DIESEL	6.0L V-8 6.6L V-8 Diesel
Engines, HP	300 310	353 365	300 350	353 365
Engines, TORQUE	360 570	373 660	365 650	373 660
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	5-speed auto 5-speed-auto	6-speed OD 6-speed OD
Tire Size & Load Range	Dual Rear Dual Rear	LT215/85R16 LT215/85R16	LT245/75RX17E LT245/75RX17E	LT215/85R16 LT215/85R16
As Shown	As Shown	6.5	6	6.5
As Shown	As Shown	6.5	6	6.5
Emissions Certification	As Shown As Shown	Bin 5	LEV II ULEV	Bin 5

**Additional Options:**

- Option 48:** Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE EXTENDED CAB 1 TON PICKUP TRUCK  
5-PASSENGERS, GASOLINE or DIESEL, LONG BED  
DUAL REAR WHEEL**

<b>Series 887C Series 887D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC30953</b>	<b>Ford Super Cab F350</b>	<b>Dodge Quad Cab DR 3L42</b>	<b>GMC Sierra TC30953</b>
Wheelbase, inches	157 157	157.5 157.5	158 158	160.5 160.5	157.5 157.5
Approximate Payload Allowance, pounds	5,120 4,600	5,260 4,622	5,580 5,270	3200 4860	5,260 4,622
Length, Overall, inches	246 246	258.7 257.7	247.6 247.6	249.7 249.7	258.7 257.7
Length, Cargo, inches	97 97	98.2 98.2	98.6 98.6	102.6 102.6	98.2 98.2
GVWR, pounds	9,900 11,400	11,400 11,400	12,200 12,800	10100 11500	11,400 11,400
Engines, Displacement, liters	As Shown As Shown	6.0 L V-8 6.6L V-8 Diesel	5.4L V-8 6.4L V-8 DIESEL	5.7 V-8 6.7L I-6 DIESEL	6.0 L V-8 6.6L V-8 Diesel
Engines, HP	300 310	353 365	300 350	330 350	353 365
Engines, TORQUE	360 570	373 660	365 650	375 650	373 660
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	5-speed OD 5-speed OD	5-Speed OD 5-speed OD	6-speed OD 6-speed OD
Tire Size & Load Range	Dual Rear Dual Rear	LT215/85R16 LT215/85R16	LT235/75RX17EBSW LT235/75RX17EBSW	LT235/80R17E LT235/80R17E	LT215/85R16 LT215/85R16
Rim Size, inches	As Shown As Shown	6.5 6.5	6 6	6 6	6.5 6.5
Emissions Certification	As Shown As Shown	Bin 5	LEV II ULEV	NAS [HD-07/LEV II] NAS [HD-07/LEV II]	BIN 5

**Additional Options:**

- Option 48: Engine, Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)**

**C.6. LIGHT-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**FULL SIZE 1 TON CREW CAB AND CHASSIS  
6-PASSENGER, GASOLINE or DIESEL  
DUAL REAR WHEEL**

<b>Series 888C Series 888D</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet Silverado CC30943</b>	<b>Dodge D3500HDCC</b>	<b>Ford F 350SD</b>	<b>GMC Sierra TC30943</b>
Wheelbase, inches	167 167	167 167	163.5 163.5	176.2 176.2	167 167
Effective cab to axle, inches	56 56	56 56	60 84	60 60	56 56
Approximate Payload Allowance, pounds	5,845 5,261	5,845 5,261	5630 6430	6,210 5,250	5,845 5,261
GVWR, pounds	11,400 11,400	11,400 11,400	12500 12500	13,000	11,400 11,400
Engines, Displacement, liters	As Shown As Shown	6.0L V-8 6.6L V-8 Diesel	6.7L I6 DIESEL	5.4L V-8 6.8L V-10 6.01V-8Diesel	6.0L V-8 6.6L V-8 Diesel
Engines, HP	300 310	353 365	330 305	300 350	353 365
Engines, TORQUE	360 570	373 660	375 610	365 650	373 660
Transmission, Automatic	Automatic Automatic	6-speed OD 6-speed OD	6-Speed auto 6-Speed auto	5-speed auto 5-speed auto	6-speed OD 6-speed OD
Tire Size & Load Range	Dual Rear Dual Rear	LT215/85R16 LT215/85R16	LT235/80R17 LT235/80R17	LT245/75RX17E LT245/75RX17E	LT215/85R16 LT215/85R16
Rim Size, inches	As Shown As Shown	6.5 6.5	7 7	7 7	6.5 6.5
Emissions Certification	As Shown As Shown	Bin 5	NAS (HD-07/LEVII)	LEV II ULEV	Bin 5

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**Cab:**

- Rearview Mirrors, Exterior, Trailer Tow/Camper Type, Both Sides:** Each mirror shall be approximately 6 inch by 9 inch and equipped with extension arms, and manually adjusted.

**Additional Options:**

- Option 48: Engine,** Larger Displacement where available (Chevrolet and GMC 6.6LTD V8)

**C.7. CUTAWAYS:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The following items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below any table are in lieu of or in addition to, the standard.

**a. Body:**

1. **Bumpers:** Manufacturer's standard front and under-ride rear bumper.

**b. Chassis:**

1. **Air Bags:** Manufacturer's standard to include side curtain/impact airbags if available from manufacturer.
2. **Air Conditioning:** Required manufacturer's standard.
3. **Arm Rests, Door-Mounted:** Both right and left arm rests are required.
4. **AM/FM Radio:** Manufacturer's standard.
5. **Auxiliary Power Outlet:** 12 volt.
6. **Automatic Transmission:** Manufacturer's standard
7. **Brakes: ABS, required,** Manufacturer's standard; front disc, 2- or 4 wheel.
8. **Ground Ratings:** As required for the GVWR certified.
9. **Heater and Defroster:** Manufacturer's standard
10. **Jack, Handle, and Lug wrench**
11. **Power Steering:** Manufacturer's standard
12. **Seat, Cloth:** Front buckets, vinyl
13. **Shock Absorbers:** Front and rear. Manufacturer's heaviest duty shocks without increase in vehicle trim level.
14. **Sun Visor:** Dual.
15. **Tinted Glass:** Manufacturer's standard
16. **Spare Wheel:** Manufacturer's standard
17. **Windshield Wipers:** Manufacturer's standard



**C.7. CUTAWAYS (continued): Refer to General Requirements, Preceding Each Group.**

**1 TON CUTAWAY CHASSIS  
8-CYLINDER, GASOLINE, 138 WHEELBASE  
DUAL REAL WHEELS FOR VAN BODY**

<b>Series 883C</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E-350</b>	<b>Chevrolet CG33503</b>
Overall Length	237	237	246.70
Overall Width	73.2	73.2	79.4
Wheelbase inches	138	138	139
GVWR, pounds	9600	9600	9600
Engine Displacement, liters	4.8L V8	5.4L V8	4.8L
Engine HP	255	255	279
Engine Torque lbs -ft	350	350	294
Transmission, automatic	As Shown	5 speed automatic	4 speed automatic
Tire size and load range, 6 ea	As Shown	LT 245/ 75Rx16E	LT 225/ 75Rx16E
Rim size, inches	6.5	7	6.5
Emissions certification	As Shown	LEV	LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. Body: Aluminum body or agency approved equal
2. Airbags: Driver and passenger side
3. Floor covering: Front vinyl
4. Logistic Track: Inlaid, 12-gauge steel, painted. E-Track or agency approved equal
5. Side Mirrors: trailer towing
6. Cab-access: sliding door in cargo
7. Interior Lights: 12-volt dome light with rear switch
8. Floor: Flat, 2 X 6 Dense Pine shiplapped, formed X-member-16 O.C., 3" X 1-1/2" single lip X-member, 4" I beam longills, undercoating
9. Lining: 3/4" Full height plywood lining
10. Interior Lights: Dome light with rear switch, hot wired
11. Bulkhead: 6" setback with or without access
12. Front End: 6-14" radius composite corner wind deflector extruded aluminum front corners with def. rad. 050, smooth
13. Undercoating: Required
14. Mud Flaps: standard supreme

**b. Chassis:**

1. Sidewalls: .040 pre-painted, side wall Z-posts on 16" centers
2. Roof: .032 Aluminum rood shin-seamless 1 piece, anti snag roof bows on 24" centers
3. Exterior Lights: FMVSS standard 108 lights, standard taillight package
4. Rear End: Standard rear end w/door opening, galvanneal rear door frame
5. Rear Door: Overhead door, aluminum clad, 85-1/4" X 71", maximum security lock on over 2 grab handles – rear aluminum 12"

**C.7. CUTAWAYS (continued): Refer to General Requirements, Preceding Each Group.**

**1 TON CUTAWAY CHASSIS  
8-CYLINDER, GASOLINE, 158 WHEELBASE  
DUAL REAL WHEELS FOR VAN BODY**

<b>Series 884C Series 884D</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E-350</b>	<b>Chevrolet CG33803</b>
Overall Length	246	257.4	246.70
Overall Width	77	77.7	79.4
Wheelbase inches	158	158	159
GVWR, pounds	11,500	11,500	12,300
Engine Displacement, liters	5.4L V8 6.0L V8	5.4L V8 6.0L V8	6.0L 6.6L Diesel
Engine HP	235	235	323 250
Engine Torque lbs-ft	440	440	373 460
Transmission, automatic	As Shown	Automatic	4-speed Automatic
Tire size and load range, 6 ea	As Shown	LT225/75Rx16E	LT225/75R16E
Rim size, inches	6.5	7	6.5
Emissions certification	As Shown	LEV	LEV

**Additional Equipment: The following equipment is also required in lieu of, or in addition to that required above:**

**a. Body:**

1. Body: Aluminum body or agency approved equal
2. Airbags: Driver and passenger side
3. Floor covering: Front vinyl
4. Logistic Track: Inlaid, 12-gauge steel, painted. E-Track or agency approved equal
5. Side Mirrors: trailer towing
6. Cab-access: sliding door in cargo
7. Interior Lights: 12-volt dome light with rear switch
8. Floor: Flat, 2 X 6 Dense Pine shiplapped, formed X-member-16 O.C., 3" X 1-1/2" single lip X-member, 4" I beam longills, undercoating
9. Lining: 3/4" Full height plywood lining
10. Interior Lights: Dome light with rear switch, hot wired
11. Bulkhead: 6" setback with or without access
12. Front End: 6-14" radius composite corner wind deflector extruded aluminum front corners with def. rad. 050, smooth
13. Undercoating: Required
14. Mud Flaps: standard supreme

**c. Chassis:**

1. Sidewalls: .040 pre-painted, side wall Z-posts on 16" centers
2. Roof: .032 Aluminum rood shin-seamless 1 piece, anti snag roof bows on 24" centers
3. Exterior Lights: FMVSS standard 108 lights, standard taillight package
4. Rear End: Standard rear end w/door opening, galvanneal rear door frame
5. Rear Door: Overhead door, aluminum clad, 85-1/4" X 71", maximum security lock on over 2 grab handles – rear aluminum 12"

**C.7. CUTAWAYS(continued): Refer to General Requirements, Preceding Each Group.**

**1 TON CUTAWAY CHASSIS  
8-CYLINDER, GASOLINE, 176 WHEELBASE  
DUAL REAL WHEELS FOR VAN BODY**

<b>Series 885C Series 885D</b>			
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford E-450</b>	<b>Chevrolet CG43903</b>
Overall Length	246	256.5	246.70
Overall Width	77	77.7	79.4
Wheelbase inches	176	176	177
GVWR, pounds	14,050 14,500	14,050 14,500	14,200
Engine Displacement, liters	6.0L 6.0L Diesel	6.8L 6.0L	6.0L 6.6L Diesel
Engine HP	305 235	305 235	323 250
Engine Torque lbs-ft	420 440	420 440	373 460
Transmission, automatic	As Shown	Automatic	4 speed Automatic
Tire size and load range, 6 ea	As Shown	LT225/75Rx16E	LT225/75R16E
Rim size, inches	6.5	7	6.5
Emissions certification	As Shown	LEV	LEV

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

1. Body: Aluminum body or agency approved equal
2. Airbags: Driver and passenger side
3. Floor covering: Front vinyl
4. Logistic Track: Inlaid, 12-gauge steel, painted. E-Track or agency approved equal
5. Side Mirrors: trailer towing
6. Cab-access: sliding door in cargo
7. Interior Lights: 12-volt dome light with rear switch
8. Floor: Flat, 2 X 6 Dense Pine shiplapped, formed X-member-16 O.C., 3" X 1-1/2" single lip X-member, 4" I beam longills, undercoating
9. Lining: 3/4" Full height plywood lining
10. Interior Lights: Dome light with rear switch, hot wired
11. Bulkhead: 6" setback with or without access
12. Front End: 6-14" radius composite corner wind deflector extruded aluminum front corners with def. rad. 050, smooth
13. Undercoating: Required
14. Mud Flaps: standard supreme

**d. Chassis:**

1. Sidewalls: .040 pre-painted, side wall Z-posts on 16" centers
2. Roof: .032 Aluminum rood shin-seamless 1 piece, anti snag roof bows on 24" centers
3. Exterior Lights: FMVSS standard 108 lights, standard taillight package
4. Rear End: Standard rear end w/door opening, galvanneal rear door frame
5. Rear Door: Overhead door, aluminum clad, 85-1/4" X 71", maximum security lock on over 2 grab handles – rear aluminum 12"

**C.8. MEDIUM-DUTY TRUCKS:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (See Section A.4.1, and Section C.1.1). The following items are minimum requirements for the models specified herein, and shall be provided whether shown as optional or standard equipment by the manufacturer. The following are some of those standard features or additional features as listed for these models. Please note any additional requirements following the table for each series number. These additional requirements listed below are in lieu of, or in addition to, the following general requirements in any table for General Purpose Automobiles:

- a. **Body:** Optional (See Sections F., G., H.).
  - 1. **Clearance Lights, Directional, Signals and Reflectors:** Shall meet or exceed the requirements of FMVSS No. 108. Armored-type clearance, turn signal lamps, and reflectors are required on cargo bodies.
  - 2. **Rear End Protective Device(s):** Medium-duty trucks (except cab and chassis units) shall be equipped with rear and under-ride protection in compliance with Texas Motor Carrier Safety Regulation, Part 393.86. Rear End Protection shall comply with, but not necessarily be limited to, the following specific areas:
    - (a) Clearance from bottom of bumper or protective device(s) and the ground shall not exceed 30 inches with the vehicle empty;
    - (b) Maximum distance between the closest points between bumpers or devices, if more than one is used, shall not exceed 24 inches;
    - (c) Maximum transverse distance from the widest part of the vehicle at the rear to the bumper or device(s) shall not exceed 18 inches;
    - (d) Bumper or device(s) shall be located not more than 24 inches forward of the extreme rear end of the vehicle; and
    - (e) Bumper or device(s) shall be substantially constructed and firmly attached.
  - 3. **MUD FLAPS:** Mud flaps shall be installed complete on all vehicles prescribed by law to meet the Department of Public Safety regulation and the following requirements:
    - (a) Mud flaps or truck splash guards, color to be **black, anti-sail and anti-splash type**, constructed of rubber or polyethylene, 24 inches wide, 1/4 inch minimum thickness, and of sufficient length to reach within 8 inches of the surface of the highway. They shall be constructed in such a manner so as to prevent sailing and water splashing. They shall have punched mounting holes. If furnished in rubber material, they shall be fully molded and cord-reinforced with metal inserts to prevent sailing and shall weigh a minimum of 18 pounds per pair.

**NOTE: NO ADVERTISEMENTS ARE PERMITTED ON MUD FLAPS.**

## C.8. MEDIUM-DUTY TRUCKS (continued)

- b. **Cab:** Conventional, unless otherwise specified in the invitation for bid. If OEM offers a taller cab option, it is to be provided as standard at no additional charge.
1. **Air Conditioning:** Manufacturer's standard.
  2. **HEATER AND DEFROSTER;** Assembly shall be the fresh air type customarily offered as the Standard vehicle manufacturer's accessory and shall be chassis factory installed. Controls shall be mounted on the dashboard.
  3. **AM/FM Radio:** Manufacturer's standard.
  4. **Assist Handles:** Installed, one on each side of cab, near the door (except for Series 930). (Outside or Inside).
  5. **Horns:** Dual electric.
  6. **Instruments:** Medium-duty trucks shall be equipped with at least the following instruments:
    - (a) Ammeter or voltmeter
    - (b) Coolant temperature gauge
    - (c) Fuel gauge
    - (d) Oil pressure gauge
  7. **REARVIEW MIRRORS, EXTERIOR, LEFT AND RIGHT SIDES (for Medium-duty Trucks only):** Mirrors shall have OEM installed metal or plastic frames. These mirrors shall be the type regularly offered as standard original vehicle manufacturer's accessory. Overall face size shall be the largest factory installed available. The mirrors shall have auxiliary convex mirrors (not the stick on type).
  8. **Running Boards, External:** Furnished anti-skid on both left and right sides of Medium-duty trucks, mounted to the frame (including Series 930), and shall support a minimum 250 pounds.

**ANTI-SKID STEPS SHALL BE CAB LENGTH (SHALL SUPPORT A MINIMUM OF 250 POUNDS) ARE ACCEPTABLE IN LIEU OF RUNNING BOARDS (Exceptions: TRUCKS FURNISHED WITH STEP TYPE FUEL TANKS (Option Nos. 57 or 58).**
  9. **Seat Belts, Lap and Shoulder:** With 3-point mounting (with retractors for driver and right front passenger and lap belt only for center passenger with bench-type seats). Installed for each passenger space to meet or exceed the requirements of FMVSS Nos. 209 and 210.
  10. **Seating with Air Brakes:** Air ride, high back driver's seat and 2-person bench seat. Bench seat shall be furnished with a head rest for each seating position. Head rests shall be height adjustable, if this feature is available from the OEM..
  11. **Seating with Hydraulic Brakes: Full width,** 3-person bench seat or driver's seat and 2-person bench seat. Seat shall be furnished with a head rest for each seating position. Head rests shall be height adjustable, if this feature is available from the OEM.
  12. **Sun Visors:** Dual.
  13. **Windshield Wipers (as required by FMVSS No. 104):** Electric with intermittent feature windshield washers.
  14. **Upholstery:** Seat fabric to be cloth or vinyl with cloth inserts. (See Option 258 for all vinyl seats).

**C.8. MEDIUM-DUTY TRUCKS (continued)**

**c. Chassis:**

1. **Alternator:** 12 volt, minimum 130 ampere for Series 930D through 950G.  
12 volt, minimum 160 ampere for Series 960D through 1200D
2. **Axle, Rear:** Single speed, unless otherwise specified in the Invitation for Bid. See Paragraph C.9.d.5 for performance requirements. Rear axle dust shields (rock guards) shall be provided on air brake equipped models.
3. **Battery Box Cover, Removable:** Cover shall be furnished for any battery or batteries located outside of engine compartment and shall fully enclose the battery or batteries.
4. **Brakes:** Shall meet or exceed the requirements of FMVSS No. 105. Air dryer including integral 100-watt heater shall be easily accessible with spin on desiccant cartridge, and automatic moisture ejector on air brake system reservoir(s). EXAMPE: Rockwell WABCO System Saver 1200 or Ordering Entity Approved Equal.
5. **Bumper:** Front only.
6. **Clutch:** Minimum 13-inch single-plate clutch required.  
**NOTE:** MINIMUM 14-INCH SINGLE-PLATE CLUTCH REQUIRED ON DIESEL POWERED TRUCKS (Series 970 through 981 and Series 985 through 990) OR 13-INCH TWO-PLATE CLUTCH MAY BE USED.
7. **Driver's Side Door:** Pocket shall be furnished at driver's side door for storage of driver's work/travel logs. Pocket to be a minimum 12 inches long if available.
8. **Magnetic Drain, Magnetic Disc, or Fill Plug:** In transmission case and rear axle housing.
9. **Power Steering:** Manufacturer's standard.
10. **Shock Absorbers:** Front, double action hydraulic.
11. **Springs, Rear:** Auxiliary overload type (N/A on Series 930).  
**NOTE:** TWO-STAGE VARIABLE RATE MAIN SPRINGS ALONE ARE UNACCEPTABLE.
12. **Tires and Wheels:** Maximum 0.095 inch out-of-round tolerance. Manufacturer's standard. Unless otherwise specified on the Invitation for Bid, tires and wheels shall be standard OEM approved FULL SIZE, STYLE AND SIZE to those on the vehicle). Wheels and tires (including spare, where applicable) shall be IDENTICAL for ALL axle positions.
  - (a) **Tires:** Steel belted radial, tubeless, all-position highway tread (shall meet FMVSS No. 119). Tires shall be at least heat range B rated.
  - (b) **Wheel:** Disc type, hub piloted.
  - (c) **Spare Wheel Only:** Spare tire is not required on Series 930 through 990.
13. **Transmission:** Manual transmission shall be provided as standard equipment on Series 950 through 990. Automatic transmission is required on Series 930 and 940.

## C.8. MEDIUM-DUTY TRUCKS (continued)

### d. **Engine:**

1. **Battery:** 12 volt, minimum cold cranking performance of 500 amperes for gasoline and 1,000 cold cranking amperes for diesel at 0 degrees Fahrenheit and 115 minutes reserve capacity at 80 degrees Fahrenheit (Series 930 manufacturer's standard).
2. **Design:** Heavy-Duty V-8 gasoline engine with manufacturer's maximum cooling capacity when specified by Series number.
3. **Governor, Engine Speed:** Installed and set at manufacturer's maximum recommended RPM.
4. **Mid-range Diesel Engine:** Provided when specified by Series Number.
5. **Engine Performance:** Transmission and rear axle ratio combination shall provide the following performance: grade-ability minimum 1.1 percent steady-state at 55 MPH; shall provide minimum 20% start ability from a complete stop (at clutch engagement), based upon full GVWR or GCWR. Maximum road speed 70 MPH, cruise control set at 65 MPH, based on maximum GVWR.
6. Synthetic lubricants and extended life coolants shall be provided where available.
7. Long life (Gates Blue Stripe or entity Ordering Entity Approved Equal) radiator hoses and silicone water lines shall also be provided where available.

### e. **Ratings, Complete Units:**

1. **Ratings:** Each medium-duty truck shall have a Gross Vehicle Weight Rating (GVWR) which meets or exceeds the Minimum Requirements listed in each table for the respective Series. Each truck shall be equipped with appropriate tires, springs, axle capacities and a chassis designed to transport a combined body and payload allowance which meets or exceeds the minimum Requirement in each respective table. Combined truck and trailer towing weight allowances (Gross Combination Weight Rating - GCWR) are listed for each model in the following tables.

### f. **Cargo Weight:**

1. **Base Units:** Deduct the driver, passenger, and cargo body weights from the body and payload allowance shown. The remainder is the cargo weight limit for the standard, base truck.

The following applies to Series 990 vehicles.

### a. **Chassis:**

1. **Air Brake Lines:** Complete with trailer air couplings (with suitable protection to restrict dirt from entering coupling) and 7-wire electrical hook-ups. Lines shall be routed through the chassis to the end of frame and shall be securely fastened to the frame at intervals sufficient to prevent sagging and to provide clearance of any mechanical parts. Rubber grommets shall be used wherever air or electrical lines pass through metal.
2. **Batteries:** Minimum 1,200 amperes cold cranking capacity.
3. **Brakes, Straight Air:** Manufacturer's standard with desiccant type air dryer, designed for towing air brake equipped trailers. Complete with dummy glad hand seals.
4. **Clutch:** Minimum 13-inch diameter with two plates, or minimum 14" single plate.
5. **Compressor, Air:** Minimum 13.2 CFM with reservoir and low-air pressure warning indicator in cab.
6. **Coolant System:** Manufacturer's maximum cooling.
7. **Moisture Ejector, Automatic:** Manufacturer's standard (installed on wet tank).

**C.8. MEDIUM-DUTY TRUCKS (continued)**

8. **Parking Brake, Spring-Set Type:** Manufacturer's standard mounted forward of rear axle.
9. **Slack Adjusters:** Automatic adjusting type, front and rear.
10. **Tachometer:** Manufacturer's standard.
11. **Trailer Package:** Including hand-control valve, tractor-protection valve, and dummy for glad hands.
12. **Visual Brake Stroke Adjustment Indicators**
13. **Wheel bearings shall be fluid lubricated with synthetic lubricants.**
14. **Oil seals shall be STEMCO wet-type standard two-piece with sight glass, or Ordering Entity Ordering Entity Approved Equal.**

\* NO EQUIPMENT SHALL BE BOLTED INSIDE THE FRAME FROM A POINT IMMEDIATELY BEHIND THE CAB AND EXTENDING 9 INCHES TOWARD THE REAR OF THE UNIT. IN ADDITION, A CLEAN FRAME RAIL SHALL BE PROVIDED ON THE PASSENGER SIDE FROM THE BACK OF THE CAB TO THE FRONT OF THE REAR SPRING HANGER.



**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \*  
6 or 8-CYLINDER, DIESEL AND GASOLINE**

<b>Series 930D Series 930G</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford F 450SD</b>	<b>Chevrolet/GMC C4500/C5500</b>	<b>Dodge Ram 4500</b>	<b>Sterling Bullet CONV 4500</b>
GVWR, pounds	16,000	16,500	16,500	16,500	<b>16,500</b>
GCWR, pounds	16,500/19,000	16,500/30,000	26,000	26,000	26,000
Front GAWR, pounds	4,800	4,800/5,200	6,250	7,000	7,000
Rear GAWR, pounds	11,000	12,000	11,000	12,000	12,000
Approximate Body/Payload Allowance, pounds	8,500	9,000 9,500	9,949	8,790	8,790
Wheelbase, inches **	141/165	141/165	156	144.5/168.5	144.5/168.5
Cab-to-Axle, inches **	60/80	84	60/84	60/84	60/84
Front Axle Capacity, pounds	7,000	7,000	7,000	7,000	7,000
Rear Axle Capacity, pounds	11,000	12,000	11,000	13,500	13,500
Heavy-Duty Frame, RBM	360	360	610	980-387	980-387
Engines, Displacement, liters	As Shown As Shown	6.4L V-8 6.8L V-8	6.6 LV8 8.1L V8	6.7 LV6 Diesel	6.7L I-6 Diesel
Engines, HP	300 325	362 350	300 325	305	305
Engines, TORQUE	457 450	457 650	520 450	610	610
Governed Speed, RPM	As Shown	2,700	3,250	2900	2900
Transmission, Automatic (See Opt. 127 for manual)	As Shown	4R100/Torq Shift	Allison 6 sp Model 1000	AISIN 6 SP	AISIN 6 speed
Tire Size & Load Range	As Shown	LT225/70RX19.5F	LT225/70R19.5F	P225/70R19.5F	225/70R19.5F
Rim Size, inches	6	6	6	19.5x6	19.5x6
Alternator, amperes	130	130	150	<b>136</b>	136
* <b>NOTE:</b> See Optional Truck Bodies.					
** <b>NOTE:</b> For longer cab-to-axle and wheelbase, see Option 33.					

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above:

**a. Body:**

- Rear End Protective Devices:** These are not required with standard purchase but when the clearance is less than 30 inches then see Section. C.9.a.3.

**b. Cab:**

- Assist Handles:** Not required.
- Dual Horns:** Not required.
- Rearview Mirror, Camper Style:** Units shall be furnished with swing-out type; left and right side face size shall be the largest factory installed available mirrors and shall be camper style.

**c. Chassis:**

- Clutch:** Manufacturer's standard.
- Spare Wheel:** Carrier or tire not required.

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6 or 8-CYLINDER, DIESEL AND GASOLINE**

<b>Series 940D Series 940G</b>					
<b>ITEM</b>	<b>Minimum Requireme nts</b>	<b>Ford F 450SD</b>	<b>Chevrolet/GM C C4500</b>	<b>Dodge Ram 4500</b>	<b>Sterling Bullet Conv 4500</b>
GVWR, pounds	16,000	16,000	16,500	16,000	16,500
GCWR, pounds	24,000	26,000	24,000	26,000	26,000
Front GAWR, pounds	5,600	5,600	7,000	7,000	7,000
Rear GAWR, pounds	11,000	12,000	11,000	12,000	12,000
Approximate Body/Payload Allowance, pounds	8,110	8,400	8,110	8,960	8960
Wheelbase, inches **	144.5	176/200	169	144.5/168.5	144.5/168.5
Cab-to-Axle, inches **	84	84	84	60/84	60/84
Front Axle Capacity, pounds	5,600	5,600	7,000	7,000	7,000
Rear Axle Capacity, pounds	11,000	12,000	11,000	13,500	13,500
Engines, Displacement, liters	As Shown	6.4L DIESEL	6.6 L DIESEL 8.1L Gasoline	6.7L	6.7L Diesel
Engines, HP	325	375	300 325	305	305
Engines, TORQUE	450	570	520 450	610	610
Governed Speed, RPM	5,000			2,500	
Transmission, Automatic (See Opt. 127 for Manual)	As Shown	5 speed auto.	Allison 6 speed	AISIN 6 SP	AISIN 6 speed
Tire Size & Load Range	As Shown	225/70R19.5	22.5/70R19.5F	P225/70R19.5 5	225/70R19.5
Rim Size, inches	As Shown	19.5	19.5X6.75	<b>19.5 X 6.0</b>	<b>19.5x6.0</b>
Alternator, amperes	130		150	136	136
* <b>NOTE:</b> See Optional Truck Bodies.					
** <b>NOTE:</b> For longer effective cab-to-axle and wheelbase, see Option 33.					

**Gasoline Engine is only available from Chevrolet and Ford.**

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above

**a. Body:**

- Rear End Protective Devices:** These are not required with standard purchase but when the clearance is less than 30 inches then see Section. C.9.a.3.

**b. Cab:**

- Assist Handles:** Not required.
- Dual Horns:** If available.
- Rearview Mirror, Camper Style:** Units shall be furnished with swing-out type; left and right side face size shall be the largest factory installed available mirrors and shall be camper style.

- c. Chassis: Spare Wheel -** Carrier or tire not required. **Shock Absorbers, Heavy-Duty -**Shock absorbers shall be the manufacturer's maximum capacity.

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS\*  
8-CYLINDER, DIESEL AND GASOLINE**

<b>Series 941D Series 941G</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Ford F 450 4x2 Crew Cab DRW</b>	<b>Ford F450 4x4 Crew Cab DRW</b>	<b>Chevrolet/GMC C4500/C5500 4X2</b>	<b>Chevrolet/GMC C4500/5500 4X4</b>
GVWR, pounds	14,500	14,500	14,500	16,500	16,500
GCWR, pounds	25,000			26,000	26,000
Front GAWR, pounds	6,000	6,000	6,500	6,250	6,250
Rear GAWR, pounds	9,500	9,500	9,500	11,000	11,000
Approximate Body/Payload Allowance, pounds	5720	6,100	5,730	9,949	9,949
Wheelbase, inches **		172	172	156	156
Cab-to-Axle, inches **	56	56	56	60/80	60/80
Front Axle Capacity, pounds	5,600			7,000	7,000
Rear Axle Capacity, pounds	11,000			11,000	11,000
Heavy-Duty Frame, RBM				610	610
Engines, Displacement, liters	6.4L V-8	6.4L V-8	6.4L V-8	6.6L V-8 8.1L V-8	6.6L V-8 8.1L V-8
Engines, HP	350	350	350	300 325	300 325
Engines, TORQUE	650	650	650	520 450	520 450
Governed Speed, RPM				3,250	3,250
Transmission, Automatic (See Opt. 127 for manual)	Allison 5 speed	Allison 5 speed	Allison 5 speed	Allison 5 speed	Allison 5 speed
Tire Size & Load Range	P225/70Rx19.5G	P225/70Rx19.5G	P225/70Rx19.5G	LT225-70R19.5F	LT225-70R19.5F
Rim Size, inches	6.25			6	6
Alternator, amperes	130			150	150
*NOTE: See Optional Truck Bodies.					
**NOTE: For longer effective cab-to-axle and wheelbase, see option 33.					

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above:

**a. Body:**

- Rear End Protective Devices:** These are not required with standard purchase but when the clearance is less than 30 inches then see Section. C.9.a.3.

**b. Cab:**

- Assist Handles:** Not required.
- Dual Horns:** Not required.
- Rearview Mirror, Camper Style:** Units shall be furnished with swing-out type; left and right side face size shall be the largest factory installed available mirrors and shall be camper style.

**c. Chassis:**

- Clutch:** Manufacturer's standard.

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \* 17,500 GVW  
6 or 8-CYLINDER, DIESEL AND GASOLINE, SHORT WHEELBASE**

<b>Series 950D Series 950G</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/ GMC C4500/C5500</b>	<b>Sterling Bullet Conv 5500</b>	<b>Dodge Ram 5500</b>	<b>Navistar 4000</b>	<b>FORD 550 SD</b>	<b>Bullet Conv Sterlin</b>
GVWR, pounds	17,500	17,500 19,500	19,000	19,500	17,780	17,500/19,000	19,500
GCWR, pounds	26,000	26,000	30,000	26,000	30,000	30,000	26,000
Front GAWR, pounds	6,000	7,000	6,000	7,000	7,280	7,000	7,000
Rear GAWR, pounds	13,000	13,500	13,000	13,500	10,500	13,660	13,500
Approximate Body/Payload Allowance, pounds	11,000	11,391	11,000	11,790	11,836	12,535	11,500
Wheelbase, inches	As Shown	128	126	168.5	152	140.8/164.8	168.5
Cab-to-Axle, inches	84	84	84	84	85	84	84
Front Axle Capacity, pounds	6,000	7,000	6,000	7,000	7,300	7,000	7,000
Rear Axle Capacity, pounds	13,500	13,500	15,000	13,500	10,500	13,660	13,500
Heavy-Duty Frame, RBM	479,000	610,400	500,000	500,000	917,600	479,000	980-30
Diesel Engine Displacement, liters	As Shown	6.6T I-6 606	6.4L I-6	6.4L I-V	6.4 V-8	6.4T V-8	6.7L Diesel
Horsepower, SAE ***NOTE	200	175	210	305	230	365	305
Torque, SAE , pounds-foot	560	420	520	610	620	575	610
Governed Speed, RPM	As Shown	2,900	2,500	2,500	2,800	2,800	2900
Gasoline Engine Displacement, liters	As Shown	8.1L V-8	NA	NA	NA	6.8L V-10	NA
Horsepower, SAE	270	270	NA	NA	NA	362	NA
Torque, SAE Gross., lbs-ft	350	450	NA	NA	NA	457	NA
Governed Speed, RPM	As Shown	5,000	NA	NA	NA		NA
Transmission, Manual (Standard)	5-Speed	2F 6 Speed	5-Speed	6-Speed	6-Speed	5-Speed	6- speed
Transmission, Automatic (See Opt. 275) ** Allison World Transmission	5 Speed	Allison 5 sp Model 1000	Allison 5 sp	Allison 6 Speed	Allison 5 speed	Torque Shift	Aisin 6 speed
Tire Size & Load Range	As Shown	225/70R19.5F	225/70R19.5 F	P225/70R 19.5R	225/70R1 9.5F	225/70R 19.5F	225/70 9.5F9.
Alternator	130	130	130	136	135	130	136

\* **NOTE:** See Optional Truck Bodies

\*\*\* **NOTE:** Vendor shall furnish higher horsepower engine to meet grade ability requirements if necessary. (See C.8.d.5.)

**SPECIAL NOTE REGARDING GASOLINE ENGINE:** Gasoline Engine is only available from Chevrolet and Ford.

**Additional Requirements:**

**a. Daytime Running Lights**

**Additional Options:**

- Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)**

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6- AND 8-CYLINDER, DIESEL AND GASOLINE, LONG WHEELBASE**

<b>Series 960D</b> <b>Series 960G</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC C6C042</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Acterra sterling</b>	<b>Ford F 650SD</b>
GVWR, pounds	22,000	23,000	22,000	23,500	22,000	23,600
GCWR, pounds	30,000	33,000	30,000	30,000	30,000	30,000
Front GAWR, pounds	7,000	8,000	8000	8,000	8,000	10,000
Rear GAWR, pounds	15,000	15,000	15,000	15,500	15000	17,500
Approximate Body/Payload Allowance, pounds	13,385	14,680	14,500	13,385	14,500	14,218
Wheelbase, inches	150	157	158	152	158	158
Cab-to-Axle, inches	84	84	84	85	84	84
Front Axle Capacity, pounds	8,000	8,100	8,000	8,000	8,000	10,000
Rear Axle Capacity, pounds	15,000	15,000	15,000	15,500	15,000	17,500
Heavy-Duty Frame, RBM	1,275,000	1,378,300	1,358,400	1,275,200	1,358,400	1,701,600
Diesel Engine Displacement, liters	As Shown	7.2T I-6	6.7T I-6	6.4T V-8	I-6 6.7LT	6.7L I-6
Horsepower, SAE G	200	207	200	200	200	200
***NOTE						
Torque, SAE Gross, lbs-ft	520	520	520	560	520	520
Governed Speed, RPM	As Shown	2,500	2400	2,800	2400	2,600
Gasoline Engine Displacement, liters	As Shown	8.1L V-8	NA	NA	NA	NA
Horsepower, SAE Gross	295	295	NA	NA	NA	NA
Torque, SAE lbs-ft	400	400	NA	NA	NA	NA
Governed Speed, RPM	As Shown	4,200	NA	NA	NA	NA
Transmission, Manual (Standard) **	5-Speed	M5	M5	M6	M5	M5
Transmission, Automatic (See Opt. 275) ***	5 Speed	5-Speed	5-Speed	5-Speed	5- speed	5-Speed
Tire Size & Load Range	9R-22.5F	9R-22.5F	9R-22.5F	9R-22.5F	9R-22.5F	9R-22.5F
Rim Size, inches	6.75	6.75	6.75	6.75	6.75	7.5
Alternator, amperes	160	130	160	160	160	130
* <b>NOTE:</b> See Optional Truck Bodies. ** <b>NOTE:</b> Direct in fifth gear, helical gears in all forward speeds. *** <b>NOTE:</b> Vendor shall furnish higher horsepower engine to meet grade-ability requirements if necessary. (See C.8.d.5.)						

**SPECIAL NOTE REGARDING GASOLINE ENGINE:** Gasoline Engine is only available from Chevrolet and Ford.

**Additional Requirements:**

- a. Daytime Running Lights

**Additional Options:**

1. See Option 33 and 34 for longer effective cab-to-axle availability.
2. Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**Additional Equipment:** The following equipment is also required on **Series 970 through 990**.

**a. Body:**

- 1. Hood, Forward Tilting**

**b. Chassis:**

- 1. Battery:** Minimum 1,000 amperes cold cranking capacity.
- 2. Brakes, Straight Air (ABS):** Manufacturer's standard, with desiccant type air dryer. Air dryer including integral 100-watt heater shall be easily accessible with spin on desiccant cartridge, and automatic moisture ejector on air brake system reservoir(s). EXAMPLE: Rockwell WABCO System Saver 1200 or Ordering Entity Approved Equal.
- 3. Automatic slack adjusters:** Front and rear, with visual brake stroke adjustment indicators.
- 4. Clutch:** Minimum 14-inch diameter with single plate; minimum 13-inch diameter with two plates.
- 5. Compressor, Air:** Minimum 13.2 CFM with reservoir and low-air pressure warning indicator in cab.
- 6. Coolant System:** Manufacturer's standard capacity for application.
- 7. Moisture Ejector, Automatic:** Manufacturer's standard (installed on wet tank).
- 8. Parking Brake, Spring-Set Type:** Manufacturer's standard mounted forward of rear axle.
- 9. Tachometer:** Manufacturer's standard.
- 10. Fuel Tank:** Minimum 45 gallon tank.

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6 or 8 CYLINDER, DIESEL AND GASOLINE, LONG WHEELBASE**

<b>Series 970D Series 970G</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC CH6042/C7H042</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Sterling Acterra</b>	<b>Ford F 650SD</b>	<b>Kenworth T270</b>
GVWR, pounds	25,500	25,950	25,500	25,500	25,500	25,999	25,500
GCWR, pounds	30,000	33,000	30,000	30,000	30,000	30,000	30,000
Front GAWR, pounds	8,000	8,000	8,000	8,000	8,000	10,000	8000
Rear GAWR, pounds	17,500	19,000	17,500	17,500	17,500	17,500	17,500
Approximate Body/Payload Allowance, pounds	17,500	18,200	18,000	17,500	17,500	17,500	17,500
Wheelbase, inches	150	152	158	152	158	158	152
Cab-to-Axle, inches	84	84	84	85	84	84	84
Front Axle Capacity, pounds	8,000	8,000	8,000	8,000	8,000	10,000	8000
Front Spring Ground Rating, pounds	As Required	9,000	8,000	8,000	8,000	10,000	8000
Rear Axle Capacity, pounds	17,500	19,000	17,500	17,500	17,500	17,500	7500
Rear & Auxiliary Ground Rating, pounds	As Required	19,000	18,000	18,500	18,000	18,500	20,000
Heavy-Duty Frame, RBM	1,275,000	1,378,300	1,358,400	1,275,200	1,358,400	1,275,200	1,776,000
Diesel Engine Displacement, liters	As Shown	7.2L I-6	6.7L I-6	6.4 V-8	6.7L I-6	6.7L I-6 ISB	6.7L I-6
Horsepower, SAE	200	207	200	200	200	200	240
Torque, SAE , lbs-ft	520	420	520	560	520	520	560
Governed Speed, RPM	As Shown	2,500	2,500	2,800	2,500	2,600	2600
Gasoline Engine Displacement, liters	As Shown	8.1L V-8					
Transmission, Manual (Standard) **	5-Speed	M5	M5	M6	M5	M5	M6 OD
Transmission, Automatic Allison 3500 RDS	3500 RDS 5 or 6 Speed	3500 RDS 5 Speed	3500 RDS	3500 RDS 5 Speed	3500 RDS	3500 RDS 5-Speed	3500RDS 5 speed
Tire Size & Load Range	10R-22.5F	10R-22.5F	11R-22.5F	10R-22.5F	11R-22.5F	11R-22.5F	11 R-22.5G
Rim Size, inches	7.5	7.5	8.25	7.5	8.25	8.25	8.25
Alternator, amperes	160	130	160	160	160	200	160
* <b>NOTE:</b> See Optional Truck Bodies.							
** <b>NOTE:</b> Direct in fifth gear, helical gears in all forward speeds							

**SPECIAL NOTE REGARDING GASOLINE ENGINE:** Gasoline Engine is only available from Chevrolet.

See Option 33 and 34 for longer effective cab-to-axle availability.

**Additional Requirements:**

1. Keyless Battery Disconnect & Engine Hour Meter required.
2. Daytime Running Lights

**Additional Options:**

1. Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \*  
6 OR 8 CYLINDER, DIESEL, LONG WHEELBASE**

<b>Series 980D</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Sterling Acterra</b>	<b>Ford F 650SD</b>	<b>Kenworth T 370</b>
GWR, pounds	27,000	27,000	27,000	27,000	27,000	27,000
GCWR, pounds	45,000	45,000	45,000	45,000	45,000	45,000
Front GAWR, pounds	8,000	8,000	8,000	8,000	10,000	8000
Rear GAWR, pounds	19,000	19,000	19,000	19,000	19,000	19,000
Approximate Body/Payload Allowance, pounds	18,315	18,600	18,315	18,600	18,782	18,400
Wheelbase, inches	150	158	152	158	158	152
Cab-to-Axle, inches	84	84	85	84	84	84
Front Axle Capacity, pounds	8,000	8,000	8,000	8,000	10,000	8000
Rear Axle Capacity, pounds	19,000	19,000	19,000	19,000	19,000	19,000
Heavy-Duty Frame, RBM	1,275,200	1,358,400	1,275,200	1,376,800	1,275,200	1,716,000
Diesel Engine Displacement, liters	As Shown	6.7L I-6	6.4 V-8	6.7L I-6	6.7L I-6 ISB	6.7L I-6
Horsepower, SAE	2	240	230	240	240	260
Torque, SAE , lbs-ft	620	620	620	620	620	620
Gasoline Engine Displacement, liters	As Shown					2600
Governed Speed, RPM	As Shown					
Transmission, Manual (Standard) **	5-Speed	M6	M6	M6	M5	
Transmission, Allison 3500 RDS	5 or 6 Speed	5 or 6 Speed	5 or 6 Speed	5 or 6 Speed	5 or 6 Speed	M6OD
Tire Size & Load Range	10R-22.5F	10R-22.5F	10R-22.5F	10R-22.5F	10R-22.5G	11R-22.5 G
Rim Size, inches	7.5	8.25	7.5	8.25	8.25	8.25
Alternator, amperes	160	160	160	160	200	160
** <b>NOTE:</b> Direct in fifth gear, helical gears in all forward speeds.						
*** <b>NOTE:</b> With air brakes (ABS); 30,000 with hydraulic brakes.						

**See Option 33 and 34 for longer Effective cab-to-axle availability.**

**Additional Requirements:**

- 1. Keyless Battery Disconnect Engine Hour Meter required.**
- 2. Daytime Running Lights standard**

**Additional Options:**

- 1. Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)**



**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6 and 7 CYLINDER, DIESEL AND GASOLINE, LONG WHEELBASE**

<b>Series 980H</b>					
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Ford F750 SD</b>	<b>Kenworth T370 Hybrid</b>
GVWR, pounds	33,000	27,000	33,000	33,000	33,000
GCWR, pounds	33,000	45,000	33,000	45,000	33,000
Front GAWR, pounds	10,000	8,000	10,000	10,000	10,000
Rear GAWR, pounds	23,000	19,000	23,000	23,000	23,000
Approximate Body/Payload Allowance, pounds	18,315	18,600	18,315	18,782	18,400
Wheelbase, inches	150	158	152	158	152
Cab-to-Axle, inches	84	84	85	84	84
Front Axle Capacity, pounds	10,000	10,000	10,000	10,000	10,000
Rear Axle Capacity, pounds	23,000	23,000	23,000	23,000	23,000
Heavy-Duty Frame, RBM	1,275,200	1,893,000	1,275,200	1,701,600	1,776,000
Diesel Engine Displacement, liters	As Shown	6.7L I-6	7.6	6.7L I-6	6.7L I-6
Horsepower, SAE	225	240	225	240	240
Torque, SAE, lbs-ft	560	560	560	620	560
Governed Speed, RPM	As Shown	2,400	2600	2600	2,6000
Transmission, Eaton EH-8E306A-UP Automated Manuel				M6	Eaton AM6 speed
Tire Size & Load Range	11R-22.51F	11R-22.5F	11R-22.5F	3500 RDS	11R-22.5 G
Rim Size, inches	8.25	8.25	8.25	8.25	8.25
Alternator, amperes	145	145	145	200	160
*Minimum Requirement – Eaton EH-8E306A (Automated Manual) and up					
**Mandatory 8 hours Hybrid Systems training by a factory certified technician on each unit, to be coordinated by ordering entity and awarded vendor.					

**See Option 33 and 34 for longer Effective cab-to-axle availability.**

**Additional Requirements:**

1. **Engine Hour Meter required.**
2. **Daytime Running Lights**

**Additional Options:**

1. **Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)**

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \*  
6- AND 8-CYLINDER, DIESEL, SHORT WHEELBASE**

<b>Series 981D Series 981G</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC CH6042/C7H042</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Sterling Acterra</b>	<b>Ford F 650</b>	<b>Kenworth T-370</b>
GVMR, pounds	27,000	27,100	27,000	27,000	27,000	27,500	27,000
GCWR, pounds	45,000	45,000***	45,000	45,000	45,000	45,000	45,000
Front GAWR, pounds	8,000	8,100	8,000	8,000	8,000	10,000	8,000
Rear GAWR, pounds	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Approximate Body/Payload Allowance, pounds	18,315	18,918	18,600	18,315	18,600	18,850	18,500
Wheelbase, inches	150	152	158	152	158	158	152
Cab-to-Axle, inches	84	84	84	85	84	84	84
Front Axle Capacity, pounds	8,000	8,100	8,000	8,000	8,000	10,000	8,000
Rear Axle Capacity, pounds	19,000	19,000	21,000	19,000	21,000	19,000	19,000
Heavy-Duty Frame, RBM **	1,275,200	1,378,300	1,893,000	1,275,200	1,275,200	1,275,200	1,776,000
Diesel Engine Displacement, liters	As Shown	7.2T I-6	6.7L I-6	7.6T I-6	6.7LT I-6	6.7L I-6 ISB	6.7
Horse power SAE	260		260	245	260	240	260
Torque, SAE, lbs-ft	620	420	620	620	620	680	620
Governed Speed, RPM	As Shown	2,500	2400	2400	2400	2,500	2,600
Gasoline Engine Displacements, liters	As Shown	8.1L V-8					
Transmission, Manual (Standard) ***	5 SPEED		M6		M6		
Transmission, Allison 3500 RDS	5 or 6 Speed	5-Speed	5 or 6 speed	5-Speed	5 or 6 speed	5-Speed	
Tire Size & Load Range	10R 22.5F	11R-22.5F	11R-22.5F	10R-22.5F	10R-22.5F	11R-22.5F	11R 22.5/ G
Rim Size, inches	7.5	7.5	8.25	7.5	8.25	7.5	8.25x22.5
Alternator, amperes	160	130	160	160	160	200	160

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above.

**a. Chassis:**

- Battery:** Minimum 1,200 amperes cold cranking capacity.

**See Option 33 and 34 for longer Effective cab-to-axle availability.**

**Additional Requirements:**

- Keyless Battery Disconnect Engine Hour Meter required.**
- Daytime Running Lights**

**Additional Options:**

- Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)**

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6- AND 8-CYLINDER, DIESEL, SHORT WHEELBASE**

<b>Series 985D</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/GMC C7C042</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Sterling Acterra</b>	<b>Ford F 750SD</b>	<b>KenWorth Model T-370</b>
GVMR, pounds	30,000	31,000	31,000	31,000	31,000	31,000	31,000
GCWR, pounds	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Front GAWR, pounds	9,000	10,000	10,000	10,000	10,000	10,000	10,000
Rear GAWR, pounds	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Approximate Body/Payload Allowance, pounds	As Shown	20,000	20,000	18,276	20,000	20,845	20,000
Wheelbase, inches	150	152	158	152	158	158	152
Cab-to-Axle, inches	84	84	84	85	84	84	84
Front Axle Capacity, pounds	9,000	10,000	10,000	10,000	10,000	10,000	10,000
Rear Axle Capacity, pounds	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Heavy-Duty Frame, RBM **	1,275,200	1,339,000	1,893,000	1,275,200	1,358,400	1,275,200	1,776,000
Diesel Engine Displacement, liters	As Shown	7.2T I-6	6.7L I-6	7.6L I6	6.7L I-6	6.7L I-6 ISB	6.7L I-6
Horsepower, SAE	245*	210	260	245	260	260	260
Torque, SAE, lbs-ft	620	520	620	620	620	620	620
Governed Speed, RPM	As Shown	2,500	2,400	2400	2,400	2,600	2,600
Transmission, Manual (Standard) ***	6 or 7 speed	M6	M6	M6	M6	M6	7 or 9 speed
Transmission Automatic* See Opt. 275 NOTE Allison World Transmission	Allison 3500 RDS 5 or 6 speed	3500RDS	3500RDS	3500RDS	3500RDS	3500RDS	3500RDS
Tire Size & Load Range	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R22.5/ G
Rim Size, inches	8.25	8.25	8.25	8.25	8.25	8.25	8.25x22.5
Alternator, amperes	160	130	160	160	160	200	160
<b>NOTE:</b> See Optional Truck Bodies.							
<b>*** NOTE:</b> Direct in sixth gear; synchronized in five forward speeds.							

See Option 33 and 34 for longer Effective cab-to-axle availability.

**Additional Requirements:**

1. Keyless Battery Disconnect Engine Hour Meter required.
2. Daytime Running Lights

**Additional Options:**

1. Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)

**C.8. MEDIUM-DUTY TRUCKS (continued): Refer to General Requirements, Preceding Each Group.**

**CAB AND CHASSIS \***  
**6-CYLINDER DIESEL, SHORT AND LONG WHEELBASE**

<b>Series 990D</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Chevrolet/ GMC C7C042</b>	<b>Freightliner M2</b>	<b>Navistar 4000</b>	<b>Sterling Acterra</b>	<b>Ford F 750SD</b>	<b>KenWorth Model</b>
GVWR, pounds	35,000	33,000	33,000	35,000	35,000	33,000	35,000
GCWR, pounds	50,000	53,000	50,000	50,000	50,000	50,000	50,000
Front GAWR, pounds	12,000		12000		12000	12,000	12,000
Rear GAWR, pounds	23,000	23,000	23,000	23,000	23,000	23,000	23,000
Approximate Body/Payload Allowance, pounds	As Shown	20,742	23000	18,315/18,276	23000	23,213	23,500
Wheelbase, inches	126/150	140/152	140/158	128/152	140/158	141/158	152
Cab-to-Axle, inches	84	84	84	85	60/84	84	84
Front Axle Capacity, pounds	12,000		12000	12,000	12000	12,000	12,000
Rear Axle Capacity, pounds	23,000	23,000	23,000	23,000	23,000	23,000	23,000
Heavy-Duty Frame, RBM **	1,275,200	1,378,300	1,358,400	1,275,200	1,358,400	1,275,200	1,776,000
Diesel Engine Displacement, liters	7.6L	7.2T I-6	6.7L I-6	7.6 I-6	6.7L-T I-6	6.7L ISB	8.3L I-6
Horsepower, SAE	260		260	260	260		260
Torque, SAE, lbs-ft	800		800	800	800		800
Governed Speed, RPM	As Shown	2,500	2200	2,400	2200	2,500	2,600
Transmission, Manual (Standard) ***	6 or 7 Speed OD		6 or 7	7 Speed OD	6 or 7		7 or 9 speed
Transmission Automatic	5 or 6 speed Allison 3500 RDS		3500 RDS 6 speed Allison	3500 RDS	3500 RDS 6 speed Allison	3500 RDS	6 spd 3500 RDS
Tire Size & Load Range	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R-22.5G	11R22.5 G
Rim Size, inches	8.25	8.25	8.25	8.25	8.25	8.25	8.25x22.5
Alternator, amperes	160	130	160	160	160	200	160
* <b>NOTE:</b> See Optional Truck Bodies. *** <b>NOTE:</b> Direct in sixth gear; synchronized in five forward speeds.							

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above:

**b. Body:**

**1. Hood, Forward Tilting**

**Engine:**

**Shall be In-Line 6-Cylinder**

**Additional Requirements:**

**6. Keyless Battery Disconnect & Engine Hour Meter required.**

**7. Daytime Running Lights**

**Additional Options:**

**1. Option 275 – Transmission, Automatic (for medium-duty trucks, Series 950 through 990)**

- C.9. HEAVY-DUTY TRUCKS:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature. See TxDOT Specification 070-51-30 for requirements.

**TRUCK CAB/CHASSIS \***  
**6 CYL DIESEL TANDEM AXLES**  
**54,000 GVWR**

**TXDOT STANDARD SPEC 070-51-30**

<http://www.dot.state.tx.us/GSD/purchasing/purchasing.htm>

<b>Series 1000D</b>						
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>KenWorth Model T-800</b>	<b>Sterling LT 9500</b>	<b>Navistar International 7600 SFA 6 X 4</b>		
GVWR, pounds	52,000	52,000	52,000	54,000		
GCWR, pounds	78,000	78,000	80,000	78,000		
Front GAWR, lbs	14,000	14,600	14,700	14,000		
Rear GAWR, lbs	40,000	40,000	40,000	40,000		
Wheelbase inches	As Required	177	180/183	183		
Cab-to-Axle, inches	108/111	110	108/111	108		
Front Axle, lbs	14,000	14,600	14700	14000		
Rear Axle, lbs	40,000	40,000	40000	40000		
Diesel Engine Displacement, liters minimum	10L	8.7	12.8L	10		
Horsepower, SAE	330	345	350	330		
Torque, SAE lbs-ft	1,350		1,350	1350		
Governed Speed, RPM	2,100			2,100		
Transmission, Manual	13 Speed or ordering entity app. Equal		13 speed	13 speed		
Transmission Automatic	Allison 4500 RDS	Allison	Allison 4500 RDS	Allison 4500 RDS		
Tire Size & Load Range	12R 22.5H	12R22.5 / G	12R 22.5(H) 16 ply	12R 22.5H		
Rim Size, inches	8.25 10 Hole Disc	8.25x22.5	8.25 10 hole disc	8.25		
Alternator, amperes	160	160`	160	160		
*** <b>NOTE:</b> See TxDOT spec 070-51-30, Part II Para 5 Performance requirement ***** <b>NOTE:</b> See TxDOT spec 070-51-30, Part II Para 3 Chassis						

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above:

**c. Body:**

1. **Hood, Forward Tilting**

**d. Engine:**

**Shall be In-Line 6-Cylinder**

**Additional Requirements:**

1. **Keyless Battery Disconnect Engine Hour Meter required.**
2. **Daytime running lights.**
3. **TxDot standard specification 070-51-30 Latest Revision**

**C.9 HEAVY-DUTY TRUCKS (continued):** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature. See TxDOT Specification 070-45-26 for requirements.

**TRUCK TRACTOR CAB/CHASSIS \***  
**6 CYL DIESEL TANDEM AXLE**  
**80,000 GCWR**

**TXDOT STANDARD SPEC 070-45-26**

<http://www.dot.state.tx.us/GSD/purchasing/purchasing.htm>

Series 1200D						
ITEM	Minimum Requirements	KenWorth Model T-800	FreightLiner M 2112	Sterlines LT 9500	International7600 SFA 6x4	
GVWR, pounds	52,000	52,000	52,000	52,000	52,000	
GCWR, pounds	80,000	80,000	80,000	80,000	80,000	
Front GAWR, pounds	12,000	12,000	12,000	12,000	12,000	
Rear GAWR, pounds	40,000	40,000	40,000	40,000	40,000	
Wheelbase, inches	144-169	169	144-169	144-169	As Req'd By Bid	
Cab-to-Axle, inches	102-108	102	102-108	102-108	102-108	
Front Axle Capacity, pounds	12,000	12,000	12,000	12,000	12,000	
Rear Axle Capacity	40,000	40,000	12000	12000	40,000	
Heavy-Duty Frame, RBM **	1,463,000	1,776,000	1,808,400	1,808,400	1,780,800	
Diesel Engine Displacement, liters	10L	10.8L Cum ISM	12.8L	12.8L	10 Liter	
Horsepower, SAE Gross Min.	330**	385	370	370	330	
Torque, SAE, lbs-ft	1,350	1,450	1450	1450	1350	
Governed Speed, RPM	2,100	1900	1900	1900	2100	
Transmission, Manual (Standard) ***	13 Speed or Agency App Equal.	13 speed	13 speed	13 speed	13 speed	
Transmission Automatic		Allison	4000HS or 4500RDS 5 or 6 speed	4000HS or 4500RDS 5 or 6 speed	4500RDS	
Tire Size & Load Range	11R-22.5G	11R22.5 /G	11R 22.5 G	11R 22.5G	11R22.5 G	
Rim Size, inches	8.25 10 Hole Steel Disc	8.25 10 Hole steel Disc	8.25 10- hole disc	8.25 10 hole disc	8.25	
Alternator, amperes	160	160	160	160	160	
***** <b>NOTE:</b> See TxDOT spec 070-45-26, Part II Para 3 Vendor shall furnish higher horsepower engine to meet grade ability requirements.						

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to, that required above:

**e. Body:**

1. **Hood, Forward Tilting**

**f. Engine:**

**Shall be In-Line 6-Cylinder**

**Additional Requirements:**

1. **Keyless Battery Disconnect & Engine Hour Meter required.**
2. **Daytime running lights.**
3. **TxDot standard specification 070-45-26 Latest Revision**

## **SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):**

### **1. ALTERNATIVE FUELED VEHICLES:**

**ALL ALTERNATIVE FUEL EQUIPMENT SHALL BE INSTALLED BY THE ORIGINAL EQUIPMENT MANUFACTURER AND SHALL MEET THE LATEST ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS APPLICABLE TO THE VEHICLE MODEL(S) SPECIFIED.**

**Bidders must furnish a list of Texas dealer name's and addresses that are licensed and authorized to service alternative fuel vehicles.**

Engines and fuel systems furnished for the respective vehicle Series shall operate on alternative fuels as specified for the vehicle series. The engine and the related integral fuel system shall be the chassis manufacturer's standard, or optional system for the vehicle type, which meets or exceeds the power requirements specified for each Series, at the engine manufacturer's rated operating speed. The engine may be of a standard production design or retrofitted by the manufacturer to operate on mono- or bi-alternative fuels, as specified in the 070-A3 Contract Invitation for Bid.

Bi-fuel systems shall have installed an automatic and/or manual switch-over control. The engine and integral fuel system shall be of such design and construction that it will give an even flow of power at all engine speeds without undue vibration, strain, or overheating of engine components. Alternative fueled vehicle operation and performance shall be equal to or better than that of similar makes and models operating on conventional fuels, including, but not limited to, cold starting and acceleration performance. The fuel system shall meet all applicable standards including those of the FMVSS and The Texas Railroad Commission. These vehicles shall be fully operational when delivered to the ordering entity without any additional modification or adjustments (See Paragraph A.4.16).

**ALTERNATIVE FUELED VEHICLES (CONTINUED):** Alternatively fueled vehicles, including all applicable engine and fuel system components, shall be fully warranted (and detailed within or becoming an amendment/attachment to the warranty) by the chassis OEM for a period of not less than 3 years and/or 36,000 miles, whichever comes first, including all engine and emission parts, and fuel system components.

Alternative fuel system components covered under the Clean Air Act emissions rules will be covered under the OEM warranty. As component upgrades become available, the engine manufacturer or his approved designate, may be permitted to upgrade engines/fuel systems in the field to improve durability, reliability, or emissions with the approval of the ordering entities.

Vehicles available from the chassis manufacturers by using these alternative fuel options are included in the "List of Series," in the "Preface" Section of this Specification. This page (v), titled "**PRODUCT INFORMATION - ALTERNATIVE FUELS VEHICLE AVAILABILITY**," delineates vehicle type, manufacturer, fuel system configuration, and Series availability, and will be amended as new products become available. After-market conversions are available for most gasoline vehicles contained within this specification by employing standard specification number(s) 055-20-01, Gasoline to Compressed Natural Gas Conversion Systems, and 055-20-02, Gasoline to Liquefied Petroleum Gas Conversion Systems.

**COMPRESSED NATURAL GAS (CNG):** The engine shall be fueled to operate on compressed natural gas. The engine, fuel system, and all related components shall meet all applicable requirements. Although compressed natural gas is listed by the Texas Commission on Environmental Quality as an alternative fuel, the ordering entity must satisfy itself that the vehicle being purchased complies with all state and federal safety standards in effect at that time.

**NOTE TO ORDERING ENTITIES:** The availability of refueling facilities within the range for this vehicle should be determined before ordering this option.

**ETHANOL (E85) / FLEX FUEL-TYPE:** The engine shall be fueled to operate on ethanol. The engine, fuel system, and all related components shall meet all applicable requirements. Although ethanol is listed by the Texas Commission on Environmental Quality as an alternative fuel, the ordering entity must satisfy itself that the vehicle being purchased complies with all state and federal safety standards in effect at that time. **There are many E85 engines available as standard equipment or as an option. Check the information in the vehicle series for verification of E85 being available.**

**NOTE TO ORDERING ENTITIES:** The availability of refueling facilities within the range for this vehicle should

**SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):**

**NOTE TO ORDERING ENTITIES:** The availability of refueling facilities within the range for this vehicle should be determined before ordering this option.

**HYBRID:** The engine shall be fueled to operate on Hybrid, gas/electric. The engine, fuel system, and all related components shall meet all applicable requirements. Although electricity is listed by the Texas Commission on Environmental Quality as an alternative fuel, the ordering entity must satisfy itself that the vehicle being purchased complies with all state and federal safety standards in effect at that time.



**SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):****MULTIPURPOSE LOW SPEED  
ELECTRIC VEHICLE**

<b>Series #330ALT</b>							
<b>ITEM</b>	<b>Minimum Requirements</b>	<b>Gem E2 Long Bed</b>	<b>Gem E2 No Bed</b>	<b>Gem ES Short Bed</b>	<b>Gem E4 Extended Cab</b>	<b>Gem E6 No Bed</b>	<b>Gem E6S Short Bed</b>
Wheelbase, inches	72	102	72	72	102	131	131
Length, inches	99	144	99	108	128	162	162
Width, inches	55	55	55	55	55	55	55
GVW	1600	2300	1600	1850	2100	3000	3200
Passengers	As shown	2	2	2	4	6	6
Electric motor	As shown	72 VOLT SHUNT GE MOTOR	72 VOLT SHUNT GE MOTOR	72 VOLT SHUNT GE MOTOR	72 VOLT SHUNT GE MOTOR	72 VOLT SHUNT GE MOTOR	72 VOLT SHUNT GE MOTOR
Engine Gross HP	As shown	5 hp	5 hp	5 hp	5 hp	5 hp	5 hp
Range		25 miles	25 miles	25 miles	25 miles	30 miles	40 miles
Tire Size & Load Range /two-ply street rated tires	As shown	12-inch	12 inch	12 inch	12 inch	13 inch	13 inch
Emissions Certification	As shown	0 emissions	0 emissions	0 emissions	0 emissions	0 emissions	0 emissions

**Note: Standard Colors are Red, Yellow, Green or White. See Options No. 39 through 42, 65 and 115 for the Multipurpose Electrical Vehicles Options.**

**Additional Options Requirements:**

- a)** Select Option 148 for charging cord set kit
- b)** Select Option 150 for windshield washer kit
- c)** Select Option 152 for scuff guard
- d)** Select Option 154 for grab handle package
- e)** Select Option 155 for clip in diamond plate box 18x18x48
- f)** Select Option 43 for Soft Door for 6 passenger vehicle
- g)** Select Option 44 for Stake back kit for long bed
- h)** Select Option 53 for Scuff Guards for a four seater
- i)** Select Option 54 for Scuff Guards for a six seater
- j)** Select Option 55 for Grab Handle Package for a four seater
- k)** Select Option 56 for Grab Handle Package for a six seater

**SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):**

**ALTERNATIVE FUELED AUTOMOBILES:** Unless specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1 and Section C.1.1). The Alternative Fueled Automobiles are required to have the same equipment as all automobiles (see Section C.2.1 through C.2.2.).

**COMPRESSED NATURAL GAS (CNG) SEDAN  
4-CYLINDER, 4-DOOR, FRONT WHEEL DRIVE**

<b>Series #340ALT</b>		
<b>ITEM</b>	<b>Minimum Req</b>	<b>Natural Gas Honda Civic GX</b>
Wheelbase, inches	103	106.3
Length, inches	175	176.7
Width, inches	67	69.0
Displacement, liters	As shown	1799 cc
Engine Net HP	100	113
Tire Size & Load Range	As shown	P195/65R15 89H
Emissions Certification	As shown	Tier II, Bin-2 + ILEV, SULEV AT PZEV

**HYBRID GAS/ELECTRIC SEDAN  
4-CYLINDER, 4-DOOR, FRONT WHEEL DRIVE**

<b>Series 341ALT</b>						
<b>ITEM</b>	<b>Minimum Req</b>	<b>Camry Hybrid 2560</b>	<b>Chevy Malibu Hybrid *</b>	<b>Toyota Prius Hybrid 1224</b>	<b>Honda Civic Hybrid</b>	<b>Saturn Aura Hybrid ZZR69</b>
Wheelbase, inches	103	109.3	112.3	106.3	106.3	109.3
Length, inches	174	189.2	190.3	175.0	176.7	189.2
Width, inches	67	71.7	70.3	67.9	69.0	71.7
Displacement, liters	As shown	2.4L 4 Cyl	2.4L 4 Cyl	1497 cc	1339 cc	2.4L 4 Cyl
Engine Gross HP (CVT) @rpm (SAE net/with IMA)	As shown	187	164@6400	76@5000	110@6000	187
Tire Size & Load Range	As shown	P215/60R16	P215/60R16	P185/65R15	P195/65R15 89S	P215/60R16
Emissions Certification	As shown	AT-PZEV Bin 3	Bin 5/ Lev 2	AT-PZEV (Emissions SULEV) Bin 3	ULEV	AT-PZEV Bin 3

**SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):**

**UTILITY VEHICLES (CARRYALLS, 4-WHEEL DRIVE UTILITY, AND CARGO VANS):** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory- installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The Alternative Fueled Utility Vehicles are required to have the same equipment as all utility vehicles (see Section C.4.a through C.4.c.).

**HYBRID GAS/ELECTRIC UTILITY  
4-DOOR, FRONT WHEEL DRIVE**

<b>Series 640ALT</b>				
<b>ITEM</b>	<b>Minimum Req</b>	<b>Saturn VUE (BAS) Hybrid ZLT26</b>	<b>Saturn Vue (2 model) in July 08</b>	<b>Ford Escape</b>
Wheelbase, inches	103	106.6	106.6	103.1
Length, inches	175	180.1	180.1	174.7
Width, inches	67	72.8	72.8	81.3
Displacement, liters	As shown	2.4L 4 Cyl	V6	2.5L In line
Engine Gross HP	As shown	172*	TBD	TBD
Net Torque	As shown	167	TBD	TBD
Tire Size & Load Range	As shown	P225/60SR17	P225/60SR17	P235/70R16
Emissions Certification	As shown	Bin 5	TBD	ULE/2TIER2B8

\* Hybrid

**Options:**

- 2. All Wheel Drive:** See Option No. 6.

**SECTION D – ALTERNATIVE FUEL VEHICLE SPECIFICATIONS (continued):**

**ALTERNATIVE FUELED LIGHT-DUTY TRUCKS:** Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's printed literature for the models specified herein (but See Section A.4.1. and Section C.1.1.). The Alternative Fueled Trucks are required to have the same equipment as all light duty trucks (see Section C.6.a through C.6.c.).

**PICK UP TRUCK/  
HYBRID GAS/ELECTRIC  
FULL SIZE, 1/2 TON, CREW CAB  
6 PASSENGERS, SHORT BED, SINGLE AXLE**

<b>Series 862ALT</b>							
<b>ITEM</b>	<b>Minimum Req</b>	<b>Chevrolet Tahoe*</b>	<b>GMC Yukon*</b>	<b>Chevy Silverado</b>	<b>GMC Sierra Hybrid 2WD*</b>	<b>Chevrolet 10543 (2 mode)</b>	<b>GMC(2mode) TC10543</b>
Wheelbase, inches	143	143.5	143.5	143.5	143.5	143.5	143.5
Approximate Payload Allowance, pounds	1691	1,962	1,962	1779	1779	1,759	1,759
Length, inches	200.8	229.9	229.9	229.9	229.9	229.9	229.9
Width, inches	78	79.9	79.9	79.9	79.9	79.9	79.9
GVWR, pounds	6,200	7,100	7,100	6,800	6,800	6,800	6,800
Displacement, liters	As shown	6.0L	6.0L	6.0L	6.0L	6.0L	6.0L
Engine Gross HP	As shown	332	332	332	332	332	332
Net Torque	As shown	367	367	367	367	367	367
Transmission, Automatic	As shown	4 speed OD	4 speed OD	4 speed OD	4 speed OD	4-speed OD	4-speed
Rim size, inches	As shown	8	8	8	8	8	8
Tire Size & Load Range	As shown	P265/65R18	P265/65R18	P265/65R18	P265/65R18	P265/65R18	P265/65R18
Emissions Certification	As shown	Bin 5/Lev 2	Bin 5/ Lev 2	Bin 5/ Lev 2	Bin 5/ Lev 2	Bin 5/Lev 2	Bin 5/Lev 2

\*Hybrid

**Additional Equipment:** The following equipment is also required in lieu of, or in addition to that required above:

**a. Body:**

- 1. Seats:** Seating shall be provided for a minimum of 5 persons, including driver (See Option No. 98 for Rear Seat Delete Option).

**Options:**

- 1. Four Wheel Drive:** See Option No. 52.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS:**

### **NOTE TO ORDERING ENTITIES:**

- 1) **ALL OPTIONS ARE NOT AVAILABLE ON ALL MODELS – CHECK WITH THE AWARDED DEALER.**
- 2) PLEASE LIST THE OPTION NUMBER AND A BRIEF DESCRIPTION (as bolded below) FOR EACH OPTION REQUIRED ON YOUR BID REQUISITION.

EXAMPLE: Option No. 1 – **Access Panel(s)**

The following optional equipment shall be furnished when so specified in the Invitation for Bid:

1. **ACCESS PANEL(S)** : Shall be equipped with at least one engine access panel on each side of hood. One access panel is allowed if service points are centralized.
2. **AIR CONDITIONING/HEATING UNIT, FACTORY INSTALLED FRONT AND REAR (for full size cargo, passenger vans and utility vehicles):** The front and rear unit shall be factory installed (no exceptions).
3. Left Blank
4. **AXLE RATIO:** Rear axle ratio shall be specified by the ordering entity in accordance with manufacturer availability. (Entity to specify).
5. **AIR BAGS:** Delete side curtain (one-piece) airbags on Law Enforcement Vehicles.
6. **ALL WHEEL DRIVE (for Series 355B, 357B, 358B, 663B,372B, 640ALT, 661B, 667B, 668b, 740b, and 741b & as available).**
7. Left Blank
8. Left Blank
9. Left Blank
10. Left Blank
11. Left Blank
12. Left Blank
13. Left Blank
14. Left Blank
15. **ALTERNATOR (for light-duty trucks and pickups only):** Manufacturer's heavy-duty, increased capacity alternator SAE rated at 130 amperes minimum.
16. **ALTERNATOR (primarily for medium-duty trucks):** Manufacturer's heavy-duty alternator SAE rated at 160 amperes minimum.
17. Left Blank
18. **AXLE, FRONT:** 13,200 pound capacity requires minimum 13,200 pound front GAWR (Series 985 through 990).
19. **AXLE, FRONT:** 12,000 pound capacity requires minimum 12,000 pound front GAWR (Series 985 through 990).
20. **AXLE, REAR, TWO-SPEED (for Series 950 through 981 trucks only):** Shall be furnished with a manual transmission. Transmission and rear axle combination shall provide the following performance: grade ability minimum 1.1 percent at 55 MPH; maximum road speed 70 MPH; cruise control set at 60 MPH. Not recommended (and limited availability) for vehicles with automatic transmission.
22. Left Blank
23. Left Blank

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 24. BRAKES, AIR (ABS) FOR TRACTOR APPLICATION WITH GLAD-HANDS (Complete Package for use with diesel or gasoline engines - for Series 970 through 980 trucks, but may be used on other size trucks based on availability with gasoline engines):** An under-hood air-compressor shall be installed to power the air brake system. The following shall be supplied in addition to those listed elsewhere for this Series:
- Engine:** Applicable diesel engine for Series, including but not limited to, with the following equipment:
- a. Cooling system: Manufacturer's standard capacity for application, to include an automatic fan clutch.
- Air Brakes (ABS) - Truck Tractor Application:**
- a. Air compressor, minimum 13.2 CFM with reservoir and low-air pressure warning indicator in cab.
- b. Parking brakes shall be spring-set type.
- c. Automatic moisture ejector (installed on wet tank).
- d. Automatic slack adjusters, front and rear.
- e. Visual brake stroke adjustment indicators.
- f. Air dryer (desiccant type). Air dryer including integral 100-watt heater shall be easily accessible with spin on desiccant cartridge, and automatic moisture ejector on air brake system reservoir(s).  
EXAMPLE: Rockwell WABCO System Saver 1200 or Equal.
- g. Color coded quick disconnects (glad-hands) mounted at rear of the truck chassis for use with trailers having air brakes; blue service and red emergency. (Blue – Service, Red – Emergency)
- 25. Air Brakes (ABS) - Truck Application (Series 970D – 1200D):**
- a. Air compressor, minimum 13.2 CFM with reservoir and low-air pressure warning indicator in cab.
- b. Parking brakes shall be spring-set type.
- c. Automatic moisture ejector (installed on wet tank).
- d. Automatic slack adjusters, front and rear.
- e. Visual brake stroke adjustment indicators.
- f. Air dryer (desiccant type). Air dryer including integral 100-watt heater shall be easily accessible with spin on desiccant cartridge, and automatic moisture ejector on air brake system reservoir(s).  
EXAMPLE: Rockwell WABCO System Saver 1200 or Equal.
- 26. BED DELETE:** OEM factory option to Bed (Box) delete required.
- 27. Left Blank**
- 28. BUMPER, REAR STEP (Series 842 - 888):** Bumpers furnished to this option shall be designed to accommodate the vehicles maximum OEM rated towing capacity. The bumper shall be factory installed and equipped with a license plate light and holes for mounting a license plate.
- 29. Left Blank**
- 30. BED LINER, SPRAY-ON:** Shall be elastomeric polyurethane. Bed liner shall be 100% solids (no VOC's, no solvents). Shall be applied at a thickness no less than 1/8" on walls and no less than 1/4" on floor and tailgate. Application will not inhibit access and use of factory tie downs. Durable, impact absorbing, abrasion resistant and skid resistant. Shall also be weather and corrosion resistant and shall not become brittle due to sun, rain, ice, or other environmental factors, at ambient temperatures of –20 degrees to 110 degrees Fahrenheit. Shall resist damage from grease, oil, gasoline and other chemicals. Shall be covered by limited lifetime warranty.
- EXAMPLE: Rhino Linings, TUFF STUFF© - manufactured by Rhino Linings USA Inc.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

31. **BED LINER, UNDER-LIP/RAIL:** Bed liner shall be compatible with cross-over toolboxes. Shall be of black, one-piece seamless Polymer/Polyethylene construction and no drill installation, with sides and floor custom formed to truck's bed, and shall include full tailgate protector. Durable, impact absorbing, non-pooling floor ribs with skid resistant top and bottom surfaces. Shall also include UV protection/ stabilization and shall not warp, split, or become brittle due to sun, rain, ice, or other environmental factors, at ambient temperatures of -20 degrees to 110 degrees Fahrenheit. Shall resist damage from grease, oil, gasoline and other chemicals. To include cut-outs for access to factory tie downs. Shall be covered by limited lifetime warranty.
- EXAMPLE: Pendaliner SR – manufactured by Penda Corporation
32. **BED LINER, OVER-LIP/RAIL:** Bed liner shall be compatible with cross-over toolboxes. Shall be of black, one-piece seamless Polymer/Polyethylene construction and no drill installation, with sides and floor custom formed to truck's bed, and shall include full tailgate protector. Durable, impact absorbing, non-pooling floor ribs with skid resistant top and bottom surfaces. Shall also include UV protection/ stabilization and shall not warp, split, or become brittle due to sun, rain, ice, or other environmental factors, at ambient temperatures of -20 degrees to 110 degrees Fahrenheit. Shall resist damage from grease, oil, gasoline and other chemicals. To include cut-outs for access to factory tie downs. Shall be covered by limited lifetime warranty. Cap rails used in conjunction with under-lip bed liners (meeting the requirements of option no. 31) may be used for this option. EXAMPLE: Pendaliner SR – manufactured by Penda Corporation
33. **EFFECTIVE CAB-TO-AXLE (C-A), INCREASED/LONGER, (for medium-duty trucks):** Cab-to-Axle (C-A) will be 102 -108 inches.
34. **EFFECTIVE CAB-TO-AXLE (C-A) INCREASED/LONGER, (for medium-duty trucks):** Cab-to-Axle (C-A) will be 120 inches.
35. **EFFECTIVE CAB-TO-AXLE (C-A), INCREASED/LONGER, (for medium-duty trucks):** Cab-to-Axle (C-A) will be 136 -139 inches. (For Series 970-990 only)
36. Left blank
37. **COLORS:** Colors shall be as specified by the ordering entity from manufacturer's standard colors available.  
**NOTE: Black and White:** For Department of Public Safety and law enforcement automobiles only.
38. **DAYLIGHT RUNNING LIGHTS DELETE:** Option to delete the daytime running lights.
39. **DOORS-MULTIPURPOSE ELECTRIC VEHICLE:** Hard door, for 2 passenger vehicle
40. **DOORS-MULTIPURPOSE ELECTRIC VEHICLE:** Hard door, for 4 passenger vehicle
41. **DOORS-MULTIPURPOSE ELECTRIC VEHICLE:** Soft door, for 2 passenger vehicle
42. **DOORS-MULTIPURPOSE ELECTRIC VEHICLE:** Soft door, for 4 passenger vehicle
43. **DOORS-MULTIPURPOSE ELECTRIC VEHICLE:** Soft door, for 6 passenger vehicle
44. **MULTIPURPOSE ELECTRIC VEHICLE:** Stake back kit for short bed
45. **DIFFERENTIAL, MAXIMUM TRACTION, LIMITED SLIP TYPE:** The maximum traction type differential shall be Posi-traction, no-spin, or equal (N/A on front wheel drive vehicles or medium duty trucks)
46. **ENGINE, WHERE AVAILABLE:** Dodge Dakota FLEX FUEL VEHICLE V8 4.7 V8 **302 HP AND 329 NET TORQUE.**
47. **ENGINE, WHERE AVAILABLE(Series 842):** Special fleet option with 2.7 L V6 190 HP and 190 net torque.
48. **ENGINE, LARGER DISPLACEMENT WHERE AVAILABLE:** Provide the next higher Horsepower ILO larger displacement over what is listed in the table for the appropriate series.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 49. EMERGENCY EQUIPMENT WIRING HARNESS:** Law enforcement emergency equipment wiring harness consisting of an assortment of circuits to provide power for emergency police equipment such as emergency lighting, sirens, gun locks, mobile video, two-way radio communications, mobile data terminals, etc. Harness shall be connected to the battery by a single positive and negative connection and protected by a 50 amps minimum circuit breaker. All individual power circuits are to be protected through the use of two remote mounted fuse boxes and/or relay panels. The harness must also contain a second power lead from the battery with 150 amp circuit protection to provide power for a power inverter located inside the vehicle and circuits to charge the batteries of electronic scales. This harness is typically used to “up-fit” vehicles for Commercial Vehicle law enforcement applications. Example: MNSTAR CRP550B or Equal.
- 50. EMERGENCY EQUIPMENT WIRING HARNESS:** Law enforcement emergency equipment wiring harness consisting of an assortment of circuits to provide power for emergency police equipment such as emergency lighting, sirens, gun locks, mobile video, two-way radio communications, mobile data terminals, etc. Harness shall be connected to the battery by a single positive and negative connection and protected by a 150 amp minimum circuit breaker. All individual power circuits are to be protected through the use of two remote mounted fuse boxes and/or relay panels. Example: MNSTAR CRP550A or Equal
- 51.** Left Blank
- 52. FOUR-WHEEL DRIVE:** Four-wheel drive vehicles shall include automatic locking hubs and skid plates.
- 53. MULTIPURPOSE ELECTRIC VEHICLE:** Scuff guards for a four seater.
- 54. MULTIPURPOSE ELECTRIC VEHICLE:** Scuff guards for a six seater.
- 55. MULTIPURPOSE ELECTRIC VEHICLE:** Grab handle package for a four seater.
- 56. MULTIPURPOSE ELECTRIC VEHICLE:** Grab handle package for a six seater.

**FUEL TANK(S), AUXILIARY, CONVENTIONAL FUEL, DOT (FHA) - for Series 930 through 990 trucks only (See Options 57 and 58):** Auxiliary fuel tank(s) shall be furnished in lieu of, or in addition to, the standard fuel tank(s) and shall be complete with in-cab fuel gauges. Tank(s) shall be securely mounted to the frame and shall not interfere with dump operation (where applicable) - See external running board requirements in Section C.8.b.8.

**NOTE:** SHOP-BUILT TANKS ARE UNACCEPTABLE; ALL FUEL TANKS SHALL BE CHASSIS-FACTORY INSTALLED.

- 57. FUEL TANK, STEP TYPE:** Shall meet the following additional requirements:
- a.** Provide a total nominal fuel capacity of 65 gallons.
  - b.** Filler openings for both standard and auxiliary tank(s) shall be on same side of truck.
  - c.** A two-way fuel tank selector valve, easily accessible to the operator, shall be provided for gasoline fuel tank(s), unless the tank(s) are provided with an automatic fuel leveling device.
- 58. FUEL TANK, DUAL STEP TYPE:** One tank on each side which shall meet the following additional requirements:
- a.** To provide a total nominal fuel capacity of 70 gallons.
  - b.** A two-way fuel tank selector valve, easily accessible to the operator, shall be provided for gasoline fuel tank(s), unless the tank(s) are provided with an automatic fuel leveling device.
- 59. FUEL TANKS, INCREASED CAPACITY:** The manufacturer shall furnish the largest fuel capacity available for the model offered. The fuel tank(s) furnished must meet or exceed requirements set forth in FMVSS No. 302-75.

**NOTE:** Optional, increased capacity fuel tank(s) are not available on passenger cars and station wagons. They are also not available on certain models of light duty trucks and vans. Ordering this option will provide the largest capacity available (if any) furnished by the manufacturer.



## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

60. Left Blank

61. **GREASE LUBRICATION**

62. Left Blank

**GRILLE GUARDS AND HEADACHE RACKS LISTED BELOW ARE REQUIRED TO HAVE, PERMANENTLY AFFIXED, MODEL AND MANUFACTURER IDENTIFICATION. LACK OF THIS IDENTIFICATION WILL BE CAUSE FOR REJECTION OF THE UNIT.**

63. **GRILLE GUARD, HEAVY-DUTY, ROUND TUBE:** A heavy-duty grille guard designed to protect the headlamps and grille of a vehicle shall be mounted on the front of vehicle for which it is required. Push Bar Pads shall be included. This guard shall be made of a minimum of 14 gauge steel tubing. This guard shall be bolted to the frame and affixed the bumper in accordance with manufacturer's specifications. Thread-forming bolts or screws are not acceptable. It shall be treated in a chemical bath or dip, or similarly treated for rust prevention prior to application of the final finish. The final finish will be powder coated in a color specified by the ordering entity. Rust-proofing shall be warranted for a minimum of 12 months from vehicle acceptance by entity. Vendor shall replace any such components exhibiting rusting prior to the end of the 12 month warranty period. Replacement shall include cost of shipping charges, to and from the original FOB point. There needs to be an added item of a grill guard for medium duty trucks with tilt forward hoods or engine covers as these are totally different and more expensive. Any price bid for item 63 will not cover the cost of a grill guard for a medium duty truck.

### **Examples:**

Ranch Hand Rover Grille Guards – Make and Model Specific – manufactured by: Ranch Hand, P.O. Box 667, Shiner, TX 77984 and 2) Round Tube Wrap Around Grille Guard – Make and Model Specific – manufactured by: Brown Welding & Mfg., New Braunfels, TX

64. Left Blank

65. **HEATER-MULTIPURPOSE ELECTRIC VEHICLE:** Heater/ defroster

66. **HEADLINER, FULL LENGTH:** For cargo vans, factory installed required where available.

67. Left Blank

68. Left Blank

69. Left Blank

70. Left Blank

71. Left Blank

72. **STROBE LIGHT- Amber:** The strobe light lense shall be amber (or blue if specified) "Class I" 360 degree gaseous discharge quad flash strobe light meeting or exceeding the requirements identified in the current SAE J1318 (Gaseous Discharge Warning Lamp for Authorized Emergency, Maintenance and Service Vehicles).

The strobe light shall have an over all diameter, including the metal base, of a minimum 5-3/4 inches (146mm) and a maximum of 7 inches (178 mm). Have a lens height of a minimum 5-3/4 inches (146 mm) and a maximum of 7 inches (178 mm). The strobe light shall be mounted as specified. A fuse, on-off switch, and on-indicator light shall be located at the operator's station. EXAMPLE: Whelen/Austin 2022ACBGH or Equal

73. **LIGHT BAR- LAW ENFORCEMENT-** Pursuit police vehicle LED overhead light bar. The light bar shall contain: four corner linear LED lamps; Two front-facing directional linear lamps consisting of one red and one blue; Four rear-facing duplex linear lamps consisting of two red and two blue positioned over a six lamp linear LED traffic advisor; Six halogen lamps consisting of left and right alley lights, two takedown lights and two flashing and/or constant-on take down lights. Example: Whelen FL8TX2 or equal. Agency must specify 49 ¾ inch or 55 inch length light bar.

**SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

74. **MIRRORS, REARVIEW, EXTERIOR, LOW MOUNT, TRAILER TOW/CAMPER TYPE, LEFT AND RIGHT SIDES (available on Series 855 through 930 only):** Manufacturer's low mount (below eye level) wide view-type mirror, which shall meet or exceed the requirements of FMVSS No. 111 and shall have a face size approximately 6 inch by 9 inch. **Extension arms are required on chassis-cab unit.**
75. **MIRRORS, REARVIEW, EXTERIOR, LOW MOUNT TYPE, LEFT AND RIGHT SIDES (SERIES 866 THROUGH 930) (ELECTRIC REMOTE CONTROL)** Manufacturer's low mount (below eye level) wide view-type mirror, which shall meet or exceed the requirements of FMVSS No. 111 and shall have a face size approximately 6 inch by 9 inch. **Extension arms are required on chassis-cab unit**
76. **MIRRORS, REARVIEW, EXTERIOR, MATCHING LEFT AND RIGHT SIDES (for automobiles):** Each mirror shall have a minimum viewing area of 12 square inches and shall be factory or dealer installed. **Left side mirror shall be remote-control type.**
- NOTE:** WHEN A SPOTLIGHT IS ALSO SPECIFIED, THE OPERATION OF THE TWO SHALL NOT CONFLICT.
77. **MIRRORS HEATED, REARVIEW, EXTERIOR: (available on Series 471BLE) -** Heated Outside Rearview, Power, Body Color
78. **Left Blank**
79. **Left Blank**
80. **Left Blank**
81. **POWER TAKE-OFF (PTO), HYDRAULIC (when available), SINGLE SPEED, ONE GEAR (NO REVERSE):** PTO shall have a shaft output speed (RPM) of minimum 50 percent and a maximum of 80 percent of engine speed (RPM) for truck dump body operation. The output shaft shall have an RPM speed of approximately 90 percent on diesel engines. The PTO shall be furnished complete with cab controls (including a dash-mounted light to indicate when PTO is in operation) and shift linkage. The cut-out for the cab controls shall be held to the absolute minimum necessary for installation and operation and shall be sealed watertight. **All PTO assemblies shall be repairable type with replaceable bearings, seals, gaskets, and other less durable parts.**
82. **POWER TAKE-OFF (PTO), HYDRAULIC (when available), MULTIPLE SPEED:** PTO shall have two speeds forward and one speed reverse for truck winch operation. The PTO shall be furnished complete with cab controls (including a dash-mounted light to indicate when PTO is in operation) and shift linkage. The cut-out for the cab controls shall be held to the absolute minimum necessary for installation and operation and shall be sealed watertight. **All PTO assemblies shall be repairable type with replaceable bearings, seals, gaskets, and other less durable parts.**
83. **POWER TAKE-OFF (PTO), SINGLE SPEED, HYDRAULIC (when available), TWO GEAR (ONE FORWARD AND ONE REVERSE):** PTO shall have a shaft output speed (RPM) of minimum 50 percent a maximum of 80 percent of engine speed (RPM) for truck operation. The output shaft shall have an RPM speed of approximately 90 percent of diesel engines. The PTO shall be furnished complete with cab controls (including a dash-mounted light to indicate when PTO is in operation) and shift linkage. The cut out for the cab controls shall be held to the absolute minimum necessary for installation and operation and shall be sealed watertight. **All PTO assemblies shall be repairable type with replaceable bearings, seals, gaskets, and other less durable parts.**
84. **LEFT BLANK**
85. **LEFT BLANK**
86. **LEFT BLANK**
87. **POWER PACKAGE DELETE OPTION:** This Option should be recorded on the purchase order if buying entity wishes to delete Power package, to include power windows, power locks, power mirrors, cruise control, and tilt steering wheel. (Note: This option is not available from Nissan.)

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 88. RACK, HEADACHE RACK STEEL (for light-duty pickup trucks only):** A light-duty headache rack shall be provided to protect the rear window. It shall be constructed of a frame of minimum 1/2 inch by 3 inch steel flat bar, and a window covering of 16-gauge horizontal louvers, evenly spaced at approximately 2 inch intervals, adequately braced with gussets to insure stability and strength. The mounting shall be accomplished by the use of the most appropriate size bolts with nuts and flat washers to insure safe and secure mounting. It shall be mounted to facilitate cleaning of the rear window, and so designed to provide an unobstructed visibility of the center-mounted, rear window of cab-mounted stop lamp. Headache rack shall be treated in a chemical bath or dip, or similarly treated for rust prevention prior to application of the final finish. The finish shall be powder coated. Rust-proofing shall be warranted for a minimum of 12 months from vehicle acceptance by entity. Vendor shall replace any such components exhibiting rusting prior to the end of the 12 month warranty period. Replacement shall include cost of shipping charges, to and from the original FOB point. Headache rack is to be black or white. Color to be specified by ordering entity.
- 89. RACK, HEADACHE RACK, NO LOUVER WINDOW GRILL (for light-duty pickup trucks only):** End plates are to be constructed at a minimum of 1/2" x 3" cold rolled steel flatbar. Upper and lower crossbars are to a minimum of 2" x 2" square tubing with minimum .065 wall. Mounting brackets are constructed of a minimum of 3/16" steel. A light-duty headache rack shall be provided to protect the rear window. The mounting shall be accomplished by the use of the most appropriate size bolts with nuts and flat washers to insure safe and secure mounting. Headache rack shall be treated in a chemical bath or dip, or similarly treated for rust prevention prior to application of the final finish. The finish shall be durable polyester powder coated. Rust-proofing shall be warranted for a minimum of 12 months from vehicle acceptance by entity. Vendor shall replace any such components exhibiting rusting prior to the end of the 12 month warranty period. Replacement shall include cost of shipping charges, to and from the original FOB point. Headache rack is to be black or white. Color to be specified by ordering entity.
- 90. RACK: HEADACHE RACK.** For medium trucks (series 930D through 990D).
- 91. LEFT BLANK**
- 92. RADIO DELETE OPTION (use when Radio is not desired)**
- 93. RADIO FREQUENCY INTERFERENCE (RFI) PACKAGE:**

*Radio frequency (RFI) interference suppression shall be incorporated so as to provide RF interference immunity to and from land mobile radio transceivers operating in the following bands: Low band (30 to 50 MHZ), high band (140 to 174 MHZ), UHF band (440 to 512 MHZ) and the 700/800/900 MHZ band (700 to 975 MHZ).*

*Typical land mobile radio transceivers will utilize a 3dB gain roof mount antenna with up to a 125 watt RF power output. Antennas will be mounted on the roof, front fender, and/or rear fender.*

*The RF immunity requirement shall apply to all vendor supplied equipment and components thereof.*

**THESE VEHICLES WILL BE SUBJECT TO TESTING UPON DELIVERY IN ACCORDANCE WITH THE TESTS DEFINED BELOW. Dealers must provide OEM's RFI ordering code designation with their bid response.**

**RADIO TRANSCEIVER IMMUNITY:** *The vehicle electronic equipment shall not be adversely affected in operation, safety, or control by radio frequency (RF) energy. For Land Mobile Radio Transceiver Interference:*

*All vehicle electronic circuits including, but not limited to, ignition, AM/FM radio receivers, computers, emission controls, fuel pumps, wiper motors, alternative fuel electronic components, air bag systems, and ABS controller, shall be designed to suppress, bypass, or otherwise prevent interference from affecting the radio transceiver. In accordance with the tests defined below, vendor will be assessed any and all charges associated with the testing of vehicles, which fail to meet RFI requirements. TEST METHOD/TEST LIMIT: Texas Department of Transportation (TxDOT) Radio Frequency (RF) Radio Interference "SINAD" Test, Texas Test Method TEX 1160-U, Latest Revision.*

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

**VEHICLE:** *The vehicle electronic equipment including, but not limited to, ignition, AM/FM radio receivers, computers, emission controls, fuel pumps, wiper motors, alternative fuel electronic components, air bag systems, and ABS controller, shall not be adversely affected in operation, safety, or control by radio frequency (RF) energy generated and radiated by the transmitter portion of installed transceivers (up to 120 watt output). In accordance with the tests defined below, vendor will be assessed any and all charges associated with the testing of vehicles which fail to meet RFI requirements. TEST METHOD/TEST LIMIT: Society of Automobile Engineers (SAE) Surface Vehicle Standard Vehicle Electromagnetic Immunity-On-Board Transmitter Simulation-J551/12, Latest Revision.*

- 94. CRUISE CONTROL AND TILT STEERING WHEEL PACKAGE:** CHASSIS MANUFACTURER'S STANDARD.
- 95. SEAT, 40/60 or 40/20/40 SPLIT BENCH SEAT (for Series 930 through 990).**
- 96. SEAT, PASSENGER, HIGH- BACK AIR RIDE: (for Series 970 through 990) – Same as Driver's Seat.**
- 97. LEFT BLANK**
- 98. REAR SEATS DELETE OPTION: (for extended cab pickups only).** \* Note: Not available from GM or Nissan).
- 99. REAR SEATS, THIRD ROW (for utility vehicles, where available):** To increase seating capacity.
- 100. REAR SEATS DELETE OPTION: ( Series 760C full size extended passenger van)**
- 101. REMOTE KEYLESS ENTRY WHERE AVAILABLE:** Combination of remote keyless entry and alarm system, with a minimum of 3 fobs furnished.
- 102. Light Bar – full width LED Multi-directional, Amber Light Bar** shall be LED technology and consist of the following: One extruded aluminum I-beam light bar, eight 400 series Linear 8 Leds and one pair 400 series halogen rear work lights. Light bar shall not include the wig-wag feature. Whelen model FL8AAA (Whelen number or TxDOT – FLTXDOT1).
- 103. Light Bar – full width LED multi-directional, Amber/Blue Light bar** shall be LED technology and consist of the following: One extruded aluminum I- beam light bar, four amber 400 series Linear 8 LEDs and one pair 400 series halogen rear work lights. Light bar shall not include the wig-wag feature. Whelen model FL8AAA (TxDOT item #FLTXDOT1).
- 104. Light Bar – full width low profile LED multi-directional, Amber Light bar** shall be LED technology and consist of the following: One extruded aluminum I – beam light bar, eight 400 series Linear 8 LEDs. Light bar shall not include the wig-wag feature. EXAMPLE: Whelen model FL8AAA (Whelen number for TxDOT - #FLTXDOT1).
- 105. Light Bar – full width low profile LED multi-directional, Amber/Blue Light bar** shall be LED technology and consist of the following: One extruded aluminum I – beam light bar, four amber 400 series Linear 8 LEDs and four blue (to be located on the driver side when mounted) 400 series Linear 8 LEDs. Light bar shall not include the wig-wag feature. EXAMPLE: Whelen model FL8AAA (TxDOT item #SLTXDOT3).
- 106. Traffic Advisor – LED Multi-Directional AMBER Traffic Advisor** shall be LED technology and consist of the following: eight amber TIER 6 LED lights. Whelen #TAM85.
- 107. SPARE WHEEL AND TIRE:** Full-size conventional type, mounted. Conventional spare tires and wheels shall be IDENTICAL IN BRAND NAME, TYPE AND SIZE OF TIRE AND WHEEL to those on the vehicle.
- 108. SPACE SAVER TIRE: Spare wheel and tire: space saver type, mounted. (OEM ONLY) Manufacturer supplied aftermarket not acceptable.**
- 109. SPOTLAMPS(Available for Series 463, 465, 471, 475 & 476):** : Manufacturer offers the **SPOTLAMP - Left Hand, Independently Fused AND SPOTLAMP PROVISION** for Left Hand.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 110. SPOTLAMPS (Available for Series 463, 465, 471, 475 & 476):** Manufacturer offers the following options - Left and Right Hand, Independently Fused.
- 111. SPOTLIGHT, PERMANENT MOUNT:** Spotlight shall be Unity 325 halogen, or equal, and shall have a 6 inch diameter white lens for current model automobile. Spotlight shall be mounted on the left side of the windshield post or quarter panel, either by the chassis manufacturer or by means of an approved bracket (Unity Model No. 229 will satisfy this requirement), if performed after-market. After-market installations shall be of quality workmanship, equal to that of OEM installations. The spotlight and the rearview mirror shall not conflict.
- 112. LEFT BLANK**
- 113. LEFT BLANK**
- 114. LEFT BLANK**
- 115. STAKE-BACK KIT-MULTIPURPOSE ELECTRIC VEHICLE:** Stake-back kit for long bed.
- 116. TIRES, ALL TERRAIN:** To provide the vehicle with All Terrain Tires in the largest size for the application as available. (4 x 4 only)

**TOOL BOXES, SINGLE LID TYPE, ALUMINUM (for use on light-duty full-size, wide bed pickups):** Shall be constructed of minimum .080 aluminum, smooth or diamond tread. All joined seams shall have full arc welds. Spot welding may only be utilized for attachment of reinforcing channels. One piece cover shall be provided and permit access from either side of the vehicle. The cover shall be weather proof when the compartment door is closed. Cover shall be fully weather stripped. Tool box hinges, manufacturers standard. Tool box lid shall be equipped with self locking stay open braces, coil springs, or gas shocks to ensure compartment door remains open when lifted. The device used for securing the tool box lid shall either be a stainless steel paddle handle latch, stainless steel "T" latch, or rust-resistant push-button lock. The interior latch(s) shall be made of steel. Each lock shall be provided complete with a key, and the tool box lock(s) shall be keyed alike. All tool boxes shall be complete with an interior tray manufactured from minimum 22-gauge steel. The length of the tray shall be approximately one-half the interior width of the pickup bed, equipped with adjustable dividers set on approximately 5 inch centers. The tool box shall be provided complete, installed. Tool box must maintain bright finish. At ordering agencies request tool box may be ordered to be powder coated in black or white at no extra charge.

**NOTE:** These options may not be compatible with alternative fuels applications due to fuel storage tank(s) location and sizes.

**NOTE:** Tool Boxes shall not be spaced or shimmed on bed rail. The mounting height shall not exceed 7 inches above the top rail of the pickup bed. Boxes shall be secured with bolts, washers and nuts. Thread-forming (self-taping) bolts or screws are not acceptable. All truck and toolbox components shall be cleaned of metal shavings, dirt, etc.; shall be cleaned prior to, and after toolbox installation.

- 117. TOOL BOX, SINGLE LID, HEAVY-DUTY. ALUMINUM, SMOOTH OR DIAMOND TREAD, STANDARD APPLICATION:** Dimensions shall be approximately 60 inches long (overall length, approximately 72 inches) by 17.5 inches deep, 20.0 inches wide. (Series 800)

**Example:** Weather Guard Model No. R-127, Rawson-Koenig Model No. C63A or equal. Substitutes must be approved by the ordering agency.

**TOOL BOXES, CROSSOVER TYPE, STEEL (for use on light-duty full-size, wide bed pickups):** Shall be constructed of minimum 17-gauge automotive steel or galvalume. All joined seams shall have full arc welds. Spot welding may only be utilized for attachment of reinforcing channels. One piece cover shall be provided and permit access from either side of the vehicle. The cover shall be weather proof when the compartment door is closed. Cover shall be fully weather stripped. Tool box shall be manufactured with stainless steel hinges attaching lids to the body of the tool box. Tool box lid shall be equipped with self locking stay open braces, coil springs, or gas shocks to ensure compartment door remains open when lifted. The device used for securing the tool box lids shall either be a stainless steel paddle handle latch, stainless steel "T" latch, or a stainless steel and brass side bar lock. The interior latches shall be made of steel. Each lock shall be provided complete with a key, and the tool box locks

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

shall be keyed alike. All tool boxes shall be complete with an interior tray manufactured from minimum 22-gauge steel. The length of the tray shall be approximately one-half the interior width of the pickup bed, equipped with adjustable dividers set on approximately 5 inch centers. Tool boxes shall be treated in a chemical bath or dip, or similarly treated for rust prevention prior to application of the final paint coating. Rust-proofing shall be warranted for a minimum of 12 months from vehicle acceptance by agency. Vendor shall replace any such components exhibiting rusting prior to the end of the 12 month warranty period. Replacement shall include cost of shipping charges, to and from the original FOB point. The tool box shall be provided complete, installed and painted manufacturer's standard white or be painted to match the truck body, if other than white. Minimum dry paint film thickness of 3 mills.

- 118. TOOL BOX, STEEL, CROSSOVER TYPE, STANDARD APPLICATION:** Dimensions shall be approximately 60 inches long (overall length 70 inches) by 16-1/2 inches deep, 20 inches wide.

**Example:** Rawson-Koenig Model No. ST-63, Weather Guard Model No. R-125, or equal. Substitutes must be approved by the ordering agency.

- 119. TOOL BOX, STEEL, CROSSOVER TYPE, SPECIAL APPLICATION, DEEP:** Used mainly by engineers and surveyors. Dimensions shall be approximately 60 inches long (overall length 70 inches) by 25-1/2 inches deep, 30 inches wide. **NOTE:** Will not fit short bed pickups.

**Example:** Rawson-Koenig Model No. ST-63WD, Weather Guard Model No. R-115 with E Dimension of 18 inches, or equal. Substitutes must be approved by the ordering agency.

**TOOL BOXES, ALUMINUM, ALL PURPOSE CHEST (for use on light-duty full-size, wide bed pickups):** Shall be constructed of minimum .080 aluminum, smooth or diamond tread. All joined seams shall be continuously welded. Spot welding may only be utilized for attachment of reinforcing channels. One piece cover shall be provided and permit access from either side of the vehicle. The cover shall be weather proof when the compartment door is closed. Cover shall be fully weather stripped. Tool box hinges, manufacturers standard. Tool box lid shall be equipped with self locking stay open braces, coil springs, or gas shocks to ensure compartment door remains open when lifted. The device used for securing the tool box lid shall either be a stainless steel paddle handle latch, at stainless steel "T" latch, or rust-resistant push-button lock. The interior latch(s) shall be made of steel. Each lock shall be provided complete with a key, and the tool box lock(s) shall be keyed alike. All tool boxes shall be complete with an interior tray manufactured from minimum 22-gauge steel. The length of the tray shall be approximately one-half the interior width of the pickup bed, equipped with adjustable dividers set on approximately 5 inch centers. The tool box shall be provided complete, installed.

Tool box is to be treated to maintain bright finish. At ordering agencies request tool box may be ordered to be powder coated in black or white.

**NOTE:** These options may not be compatible with alternative fuels applications because of fuel storage tank(s) location and sizes.

- 120. TOOL BOX, SINGLE LID, HEAVY-DUTY. ALUMINUM, SMOOTH OR DIAMOND TREAD, ALL PURPOSE CHEST TYPE, STANDARD APPLICATION:** Dimensions shall be approximately 58 inches long (overall length 61 inches) by 19 inches deep, 23 inches wide.

**Example:** Weather Guard Model No. 664, Rawson-Koenig Model No. M60FW-1NMA or equal. Substitutes must be approved by the ordering agency.

- 121. TOOL BOX, SINGLE LID, HEAVY-DUTY. ALUMINUM, SMOOTH OR DIAMOND TREAD, ALL PURPOSE CHEST TYPE, APPLICATION FULL SIZE WIDE BED TRUCKS:** Dimensions shall be approximately 48 inches long (overall length 61 inches) by 19 inches deep, 23 inches wide.

**Example:** Rawson-Koenig Model No. M60U-1NMA or equal. Substitutes must be approved by the ordering agency.

**TOOL BOX, SINGLE LID, HEAVY-DUTY, STEEL, SMOOTH, CHEST TYPE:** Shall be constructed of minimum 17-gauge automotive steel or galvalume. All joined seams shall be continuously welded. Spot welding may only be utilized for attachment of reinforcing channels. One piece cover shall be provided and permit access from either side of the vehicle. The cover shall be weather proof when the compartment door is closed. Cover shall be fully

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

weather stripped. Tool box shall be manufactured with stainless steel hinges attaching lids to the body of the tool box. Tool box lid shall be equipped with self locking stay open braces, coil springs, or gas shocks to ensure compartment door remains open when lifted. The device used for securing the tool box lids shall either be a stainless steel paddle handle latch, stainless steel "T" latch, or a stainless steel and brass side bar lock. The interior latches shall be made of steel. Each lock shall be provided complete with a key, and the tool box locks shall be keyed alike. All tool boxes shall be complete

- 122. TOOL BOX, SINGLE LID, HEAVY-DUTY, STEEL, SMOOTH, CHEST TYPE, STANDARD APPLICATION (Series 842 – 888):** Dimensions shall be approximately 58 inches long (overall length, approximately 58 inches) by 17.5 inches deep, 20.0 inches wide. Mounted to the floor of the body.

**Example:** Rawson-Koenig Model No. M58U-1NM or equal. Substitutes must be approved by the ordering agency.

**TOOL BOX, DUAL LID, HEAVY-DUTY. STEEL, SMOOTH, CHEST TYPE, STANDARD APPLICATION:** Shall be constructed of minimum 17-gauge automotive steel or galvanized. All joined seams shall be continuously welded. Spot welding may only be utilized for attachment of reinforcing channels. One piece cover shall be provided and permit access from either side of the vehicle. The cover shall be weather proof when the compartment door is closed. Cover shall be fully weather stripped. Tool box shall be manufactured with stainless steel hinges attaching lids to the body of the tool box. Tool box lid shall be equipped with self locking stay open braces, coil springs, or gas shocks to ensure compartment door remains open when lifted. The device used for securing the tool box lids shall either be a stainless steel paddle handle latch, stainless steel "T" latch, or a stainless steel and brass side bar lock. The interior latches shall be made of steel. Each lock shall be provided complete with a key, and the tool box locks shall be keyed alike. All tool boxes shall be complete

- 123. TOOL BOX, DUAL LID, HEAVY-DUTY, STEEL, SMOOTH, CHEST TYPE, STANDARD APPLICATION (Series 842 – 888):** Dimensions shall be approximately 60 inches long (overall length, approximately 58 inches) by 18.5 inches deep, 20.0 inches wide. Mounted to the floor of the body.

**Example:** Rowson-Koenig Model No. M60U-2NM or equal. Substitutes must be approved by the ordering agency.

- 124. TOW DEVICES:** 2 front mounted tow hooks (loops are acceptable) or 1 front-mounted heavy-duty tow pin, with minimum horizontal pull capacity of 28,000 pounds shall be installed by the truck chassis manufacturer (Series 960 and up).
- 125. TRAILER, IN-CAB ELECTRIC BRAKE CONTROLLER:** Cab control unit shall be furnished and installed, for applying trailer brakes both simultaneously and independent of the brakes of the towing vehicle. Approved Brand – Cequent Towing.
- 126. Left Blank**
- 127. TRANSMISSION, MANUAL, 4-SPEED :** Manufacturer's standard for series specified.
- 128. TRANSMISSION, MANUAL, 5-SPEED (Series 842 – 888):** Manufacturer's standard for series specified.
- 129. TRANSMISSION, MANUAL, 6-SPEED :** Manufacturer's standard for series specified.
- 130. TRANSMISSION, MANUAL, 7-SPEED (Series 970 – 1200):** Manufacturer's standard for series specified.
- 131. TRAILER TOWING PACKAGE** (available for police vehicle, Series 466CLE Special Service Package: **HEAVY-DUTY TRAILER TOW PACKAGE:** Class IV hitch receiver, 4- and 7- pin connectors, heavy-duty auxiliary transmission oil cooler and radiator, and electronic brake wiring kit..
- 132. TRANSMISSION OIL COOLER, HEAVY-DUTY AUXILIARY (for non-electronic automatic transmission in automobiles, light- and medium-duty trucks):** This is in addition to, not in lieu of, the regular oil cooler installed by the chassis manufacturer unless an increased capacity internal cooler, which is available from the chassis manufacturer, is provided. This option may be an approved after-market unit for use on Medium-duty trucks only.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

**NOTE:** The chassis manufacturer's increased cooling capacity option code shall be indicated on the line-setting ticket or window sticker provided with the unit upon delivery.

- 133. TRAILER TOWING PACKAGE** (available for light duty trucks - Series 842 to 864; utility vehicles – Series 650, 655, 662, and 665 and vans – Series 670 and 750). All items are to be OEM equipment and installed by manufacturer and shall include, but not be limited to, the following: **Class III** receiver hitch, a transmission oil cooler (when automatic transmission is ordered), heavy-duty radiator, and trailer wiring harness. Harness shall be provided as an integral part of the vehicle wiring system to provide power to trailer turn signals, brakes, brake lights, and running lights. Each wire shall be labeled according to its function, i.e. brakes, turn, etc. This is a frame mounted receiver hitch. A 7-Pin, RV style, Flat (spade) electrical connector to connect trailer wiring circuitry to the vehicle wiring harness.  
EXAMPLE: Grote 82-1058 or Equal."  
This is frame mounted receiver hitch.
- 134. TRAILER TOWING PACKAGE** (available for light duty trucks – Series 866 to 888, and vans – Series 680-687, 755, 760 and 770). All items are to be OEM equipment and installed by manufacturer and shall include, but not be limited to, the following: **Class IV** receiver hitch, a transmission oil cooler (when automatic transmission is ordered), heavy-duty radiator, and trailer wiring harness. Harness shall be provided as an integral part of the vehicle wiring system to provide power to trailer turn signals, brakes, brake lights, and running lights. Each wire shall be labeled according to its function, i.e. brakes, turn, etc. This is a frame mounted receiver hitch. A 7-Pin, RV-style, Flat (spade) electrical connector to connect trailer wiring circuitry to the vehicle wiring harness.  
  
EXAMPLE: Grote 82-1058 or Equal
- 135. TRAILER TOWING PACKAGE** (available for medium duty trucks - Series 930 and above) – all items are to be OEM equipment and installed by manufacturer and shall include, but not be limited to, the following: **Class V frame mounted** receiver hitch, (note: **receiver hitch may be after frame mounted**), a transmission oil cooler (when automatic transmission is ordered), heavy-duty radiator, and trailer wiring harness. Harness shall be provided as in integral part of the vehicle wiring system to provide power to trailer turn signals, brakes, brake lights, and running lights. Each wire shall be labeled according to its function, i.e. brakes, turn, etc. A 7-Pin, RV-style, Flat (spade) electrical connector to connect trailer wiring circuitry to the vehicle wiring harness.  
  
EXAMPLE: Grote 82-1058 or Equal
- 136. VAN CAPACITY:** Increased to 12 passengers or cargo capacity increased. Wheelbase 170 inches; Approximate Payload Allowance 2,602 pounds; and Overall length 273.2 inches.
- 137. WHEELCHAIR LIFT:** Conversion of a full size van, equipped with a raised roof, wheelchair lift, provisions for stand-up entry and wheelchair passenger securement for one wheelchair position. Note; This option reduces ambulatory passenger capacity to 7. Refer to Section I Special Equipment-Wheel Chair.
- 138. WHEELCHAIR LIFT:** Conversion of a full size van, equipped with a raised roof, wheelchair lift, provisions for stand-up entry and wheelchair passenger securement for two-wheelchair positions. Note; This option reduces ambulatory passenger capacity to 5. Refer to Section I Special Equipment-Wheel Chair.
- 139. WHEELCHAIR VEHICLE FAREBOX:** Fare box shall be mounted with trip handle toward driver. It shall be mounted on a stanchion, adequately braced, located near the driver and easily accessible to passengers entering vehicle. An amber or indirect fare box light shall be connected to the dash instrument lights. Two interchangeable, lockable fare box vaults and fare box, keyed alike, with a double set of keys for each lock shall be supplied.
- 140. WINDOW TINT (Limited Application):** Maximum factory-installed available. Tinting shall meet Texas Department of Public Safety regulations. **Note: Tint to be installed at the factory and not at the dealership.**



## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 141. PARATRANSIT BODY:** Conversion of a full size van equipped with a raised roof to a paratransit vehicle with provisions for stand-up entry, seating for eight (8) adult ambulatory passengers and two wheelchair positions along with the wheelchair lift and tie downs. Wheelbase, 138 inches. Approximate Payload Allowance, 2,550 pounds. Overall Length, 240 inches. Refer to Section I Special Equipment-Wheel Chair.
- 142. PARATRANSIT BODY:** Conversion of a full size van equipped with a raised roof to a wide body paratransit vehicle with provision for stand-up entry, seating for twelve (12) adult ambulatory passengers and two wheelchair positions along with the wheelchair lift and tie downs. Wheelbase, 158 inches. Approximate Payload Allowance, 2,550 pounds. Overall Length, 264 inches. Refer to Section I Special Equipment-Wheel Chair.
- 143. PARATRANSIT BODY:** Conversion of a full size van equipped with a raised roof to a wide body paratransit vehicle with provision for stand-up entry, seating for sixteen (16) adult ambulatory passengers and two wheelchair positions along with the wheelchair lift and tie downs. Wheelbase, 176 inches, Approximate Payload Allowance, 2,550 pounds. Refer to Section I Special Equipment-Wheel Chair.
- 144. WHEELCHAIR VEHICLE FIXED ROUTE OPTION ARE AS FOLLOWS:**
- DESTINATION SIGNS:** Changeable destination, twelve (12) volt motor driven movable mechanism signs shall be furnished on the curb side above the passenger window and at the front of the vehicle above the windshield. Front sign curtain to be approximately 36 inches wide. Sign curtains to be illuminated. Front bulkhead or sign box shall have door to open for viewing sign curtain position. Door shall be positioned for ease of driver operation. Sign shall comply with ADA requirements. Example: Trans Sign, Model D-3110, or equal.
- PUBLIC INFORMATION SYSTEM:** Driver activated PIS to announce stops and other passenger information. The system shall include four (4) speakers spaced throughout the vehicle above the passenger seating area enabling sound to reach each passenger. The system shall be integrated with AM/FM radio system so that the PIS will override the radio when activated.
- STOP REQUEST CHIME:** A chime shall be provided that is activated by a pull cord. The pull cord shall be above the passenger windows within reach of each passenger.
- 145. WINDSHIELD WIPER, REAR WINDOW WITH INTEGRAL WASHER (Limited Availability):** Not available with panel doors.
- 146. WIRING, ACCESSORY, POWER SUPPLY (Limited Availability):** Shall provide a minimum 12 volt power supply from the battery with 2 separate 30 amp serviceable fused circuits. Wiring shall be routed to the cab, under the dashboard. Sufficient wiring shall be provided to permit in-dash mounting of ancillary equipment controls. The main supply lead shall be minimum 10-gauge and shall have either a 50 amp primary fused circuit with 3 separately fused secondary circuits, or a 60 amp primary fused circuit with 2 separately fused secondary circuits. Each secondary circuit shall be fused for both positive and ground to protect electrical accessories. The sum of secondary circuit amperage ratings shall not exceed the primary circuit amperage rating. All fuses shall be serviceable. Shall provide either direct battery power or operation through the ignition system. Hook wire shall be provided on or under the dash. This option shall not compromise any requirements of RFI, identified in Option No. 93, when ordered.
- 147. WIRING, AUXILIARY FOR CAB-MOUNTED LIGHTING (Limited availability):** A dash-mounted switch and wiring to the roof of the cab shall be provided for installation and connection of a cab roof mounted double flash strobe warning light or other similar device. System shall supply a minimum 12 volt or 24 volt D.C. power, through an independently fused connection, as required to operate a double strobe warning light. All wiring shall be housed within the cab and ends shall be capped. Requires: 8 gauge wire, 35 amp manual re-set circuit breaker, and 40 amp switch. Instructions for wiring access through the cab roof shall be furnished. This option shall not compromise any requirements of RFI, identified in Option No. 93, when ordered.
- 148. CHARGING CORD SET KIT FOR GEM VEHICLES.**
- 149. Left Blank**

**SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 150. **WINDSHIELD WASHER KIT FOR GEM VEHICLES.**
- 151. **GLASS IN ALL DOORS:** For cargo vans, glass must be factory installed; no dealer installed glass acceptable.
- 152. **SCUFF GUARDS FOR GEM VEHICLES.**
- 153. **GLASS IN EACH DOOR AND SIDE PANEL (Same as Window Van):** For cargo vans, glass must be factory installed; no dealer installed glass acceptable.
- 154. **GRAB HANDLE PACKAGE FOR GEM VEHICLES.**
- 155. **CLIP IN DIAMOND PLATE BOX 18XX18X48 FOR GEM VEHICLES.**
- 156. **Left Blank**

**FOR LIGHT-DUTY TRUCKS (Series 870, 875, 881, 886, and 888):**

- 157. **PLATFORM DUMP BODY, WOODEN FLOOR (See Section F.2.)**
- 158. **STATIONARY PLATFORM BODY, WOODEN FLOOR (See Section G.)**
- 159. **STATIONARY PLATFORM BODY, STEEL FLOOR (See Section G.)**
- 160. **STATIONARY STAKE BODY, WOODEN FLOOR (See Section G.)**
- 161. **STAKE DUMP BODY, WOODEN FLOOR (See Section F.3.)**
- 162. **PLATFORM DUMP BODY, STEEL FLOOR (See Section F.2.)**
- 163. **UTILITY BODY, STANDARD (See Section H.)**

**NOTE:** Option No. 172 may be ordered with one or more of the below as specified in the Invitation for Bids. For example, Option No. 173 would be a standard utility body with telescoping top and tailgate enclosure added.

**NOTE:** Height changes to approximately 49 inches for dual rear wheel applications

- 164. **OPTION NO. 172 WITH TELESCOPING TOP AND TAILGATE ENCLOSURE**
- 165. **OPTION NO. 172 WITH TOP OPENING SMALL PARTS TRAY ON BOTH COMPARTMENT TOPS.**
- 166. **OPTION NO. 172 WITH THROUGH COMPARTMENT AND REAR ACCESS DOOR (N/A with Option No. 173).**

**NOTE:** Height changes to approximately 43 inches.

- 167. **STATIONARY STAKE BODY, STEEL FLOOR (See Section G.)**
- 168. **STAKE DUMP BODY, STEEL FLOOR (See Section F.3.)**

**FOR MEDIUM-DUTY TRUCKS (Series 930 through 990):**

- 169. **UTILITY BODY, STANDARD (See Section H.)**

**NOTE:** Option No. 172 may be ordered with one or more of the below as specified in the Invitation for Bids. For example, Option No. 173 would be a standard utility body with telescoping top and tailgate enclosure added.

**NOTE:** Height changes to approximately 49 inches for dual rear wheel applications.

- 170. **OPTION NO. 172 WITH TELESCOPING TOP AND TAILGATE ENCLOSURE**
- 171. **OPTION NO. 172 WITH TOP OPENING SMALL PARTS TRAY ONLY ON BOTH COMPARTMENT TOPS**
- 172. **OPTION NO. 169 WITH THROUGH COMPARTMENT AND REAR ACCESS DOOR (N/A with Option No. 170).**

**NOTE:** Height changes to approximately 43 inches.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

- 173. STATIONARY PLATFORM BODY, WOODEN FLOOR (See Section G.)
- 174. STATIONARY STAKE BODY, WOODEN FLOOR (See Section G.)
- 175. STATIONARY STAKE BODY, STEEL FLOOR (See Section G.)
- 176. STAKE DUMP BODY, WOODEN FLOOR (See Section F.3.)
- 177. PLATFORM DUMP BODY, STEEL FLOOR (See Section F.2.)
- 178. CONTRACTOR'S DUMP BODY, 96 INCH, 2 CUBIC YARD CAPACITY (See Section F.1.)
- 179. CONTRACTOR'S DUMP BODY, 120 INCH, 3 CUBIC YARD CAPACITY (See Section F.1.)
- 180. CONTRACTOR'S DUMP BODY, 96 INCH, 4 CUBIC YARD CAPACITY (See Section F.1.)
- 181. CONTRACTOR'S DUMP BODY, 120 INCH, 4 CUBIC YARD CAPACITY (See Section F.1.)
- 182. CONTRACTOR'S DUMP BODY, 96 INCH, 5 CUBIC YARD CAPACITY (See Section F.1.)
- 183. CONTRACTOR'S DUMP BODY, 120 INCH, 5 CUBIC YARD CAPACITY (See Section F.1.) (Series 970D, 980D, 981D, & 990D)
- 184. **DUMP BODY, 6-8 YARD, COMPLETE PACKAGE, INSTALLED:** This option is ordered with Option No. 187 – 6 CUBIC YARD DUMP TRUCK CHASSIS CONFIGURATION (requirements for the 6-8 yard dump body cab and chassis).

This specification describes minimum requirements for turn-key installation of a dump body and hydraulics to be used by agencies within the State of Texas. The complete unit will be used in severe service operations, which may include dumping on road shoulders at an angle, sand/salt spreading, and towing of air brake equipped trailers up to the dump truck's full GCWR. Vendor shall ensure the dump body and components are designed, constructed, and installed to withstand this intended use for the life of the chassis (approx. 10 years).

### **REQUIREMENTS:**

**Capacity** - 6- cubic yard capacity, water level without sideboards.

**Body** - floor minimum 1/4" AR400 180,000 psi high tensile steel. The body front, end and sides to be minimum 10 gauge high tensile steel. All-welded construction with braced non-removable sides not less than 29 inches tall. The floor shall have a 2 inch radius where it meets the sides. Floor beams shall be securely fastened to the sub-frame by a full weld and/or welded angle straps. Floor shall have cross members set on approximately 12 inch centers. Cab shield shall be 10 gauge with 8 gauge gussets. Shield to be sloped toward rear with "J" formed forward edge and fully welded to body. A 7 inch X 1/4 inch skirt shall run the full width of the body and welded to full depth corner-post. Sides to be integral with running board/rubrail and slope at 30 degrees to shed material spilled over side of body. Supports to be 6" side boxed type, evenly spaced along side of body and fully welded. Angle iron to be installed at top rail to prevent scalloping of sides from loader impact and to shed loose material. Body to be mounted on the chassis with a 6 to 8 inch gap between the rear of cab to the front of body.

**Tailgate** - Shall be constructed of minimum 8 gauge high tensile steel. Shall be removable and be hinged at the top and bottom with an adjustable 3/8 inch chain support and have an air operated latch with grease zerks on cross shaft pivot points. Shall have boxed horizontal, vertical, and perimeter bracing. Tailgate latch to be over- hook type, minimum 3/4 inch thick with double 3/8 inch lower sockets. Hinge and latch pin to be 1 1/4 inch minimum diameter. Shall have upper and lower slotted chain keepers. A set of 3/8-inch high-test chain shall be provided and installed, to allow for support of the tailgate in the horizontal position. When tailgate is in down -horizontal position, it shall be level with dump body floor with a space of not more than 1/2" between body and bottom of gate.

**Sub-frame and under-structure** - Shall be constructed with an independent sub-frame for connecting lower end of hydraulic hoist and body pivot pin; hoist and body pivot pin shall not be connected directly to

the truck frame. A grounding strap shall be connected between the dump body frame and the main frame of the truck. Safety support struts installed to safely support an empty body in a raised position. When stored, the struts shall not interfere with dump body operation. Rear of frame to be boxed and ready for addition of a pintle plate.

**Ladder** - mounted on driver's side of bed, shall fold for transport. Ladder to be fabricated of 1 inch square steel stock with approximately 5 rungs. Mounted ahead of the tires. When in transport position, ladder must not extend beyond main edge of body more than 2 inches. Latch system shall secure the ladder in place while traveling. Bed to have fixed rungs or steps as part of, or welded onto, side of bed to allow a person to climb into the box. Skid resistant/epoxy-bonded coating shall be applied on top of each rung. A grab handle shall be installed near the ladder to aid in mounting.

**Cab Protector** - Shall extend no less than 24 inches over cab and no less than 3 inches above cab. Shall be full width of bed and have gussets welded on each side for support.

**Hydraulic System** - Complete hydraulic system to supply a working pressure of no less than 2,000 psi and 40 gpm for operating a dump body hoist and hydraulically powered material spreader. All hoses shall be designed for use in hydraulic applications. Each hose shall be removable without requiring removal of adjacent connections or hoses. Quick couplers to include both male and female ends, with dust covers supplied. All hoses and fittings shall be rated at 1.5 times the required working pressure.

Vendor is responsible for promptly resolving any malfunctions in the system due to contamination or poor workmanship. Note: Restrictions that cause pressure drops or back pressure are not acceptable.

**Pump and PTO** - The system shall include a direct-mounted PTO and hydraulic pump, designed and sized to effectively power the hydraulic system to perform all intended functions. Pump to be gear-type. PTO shall be hot-shift type and operate at not less than 85% or more than 110% of engine speed.

**Tank** - shall have a minimum capacity of forty gallons and be equipped with an internal baffle, a 10 micron filter element /screen in the filler opening, breather type fill cap, fluid level and temperature check gauge, magnetic drain plug in the bottom, and openings for connectors as necessary. The tank shall be filled with hydraulic fluid compatible with all components in the system to within 2 inches from the top.

**Hydraulic Control Valve** – shall be air actuated, equipped with unloader valve and provide minimum 40 gpm flow rate. Valve shall be factory set a 2,000 psi with relief set at 2,200 psi. Working ports to be SAE O-ring. Cycle time from empty body to move from fully raised to full down transport position shall be 10 to 20 seconds at engine idle.

**Auger and Spinner** - Shall have proportional flow control for auger and spinner. Auger to have 15 gpm spool with blast function and built-in pressure compensator. Spinner to have 7 gpm spool with blast function and built-in pressure compensator.

**Hoist** - NTEA rated and classified; Class 80, telescopic. To be power up, and gravity or power down. Hoist provided must raise the body to a minimum 50 degree dump angle with a 12 inch overhang and shall control the position of the body throughout the entire dumping cycle. The hoist cylinder shall be equipped with an in-line throttle safety valve or "Flow Fuse" to prevent the body from falling if a hose breaks.

**Electronic controller** - shall be solid state touch/push pad with sealed switches and blast button, backlit with leds. Controller shall have manual reset circuit breaker and be over-voltage protected. Proportional controls shall be protected by individual quick-blow fuses.

**Controls** - to be mounted in cab, readily accessible to the driver.

**Lights and Safety** - A backup alarm shall be supplied along with a body raised indicator light in truck cab. All required body lights to be LED, except backup light may be halogen. Lights to be recessed in the center of the dump body corner posts. Marker lights to be recessed in corner posts and rear skirt. Trailer connectors to be located at rear of vehicle (7-prong type).

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

**Painting** - Body to be cleaned with hi-pressure phosphate cleaner, painted with a high quality industrial primer, and painted with a finish coat of industrial enamel. Finish paint color to match the color of the truck chassis (or as specified by the purchaser).

**Pintle plate and hitch** – to be installed by ordering entity.

All other items necessary for a complete, turn-key installation such as wiring, conduit, connectors, tape, paint, fittings, fuses, etc., are the responsibility of the vendor.

[For contract IFB:]

BODY MAKE: \_\_\_\_\_ MODEL: \_\_\_\_\_

HOIST MAKE: \_\_\_\_\_ MODEL: \_\_\_\_\_

Auger: \_\_\_\_\_ GPM Spinner: \_\_\_\_\_

GPM PUMP MAKE: \_\_\_\_\_ MODEL: \_\_\_\_\_

GPM Flow Rate: \_\_\_\_\_

PTO MAKE: \_\_\_\_\_ MODEL: \_\_\_\_\_

Percent of Engine RPM: \_\_\_\_\_

### **185. STATIONARY PLATFORM BODY, STEEL FLOOR (See Section G.)**

### **186. STAKE DUMP BODY, STEEL FLOOR (See Section F.3.)**

### **187. 6 CUBIC YARD DUMP TRUCK CHASSIS CONFIGURATION (DT-1)**

**STATEMENT OF INTENDED USE:** These chassis will be up-fitted by state forces for use in 6 cubic yard dump truck applications, and shall be certifiable as straight trucks.

#### **Special Chassis Requirements:**

Verify wording to add to dimension from back of cab to center of rear axle – **Confirm final configuration with ordering entity – rear cross members no closer than 14 inches.**

#### **Front Frame Extensions optional on the 970D - 990D, base and DT – 1 model**

Effective CA (dimension from back of cab to center of rear axle) shall be 84 inches. Dimension from back of cab to end of frame shall be minimum 124 inches with the rear cross member located no more than inches 120 inches from back of cab.

No equipment shall be bolted inside the frame from a point from immediately behind the cab and extending 9 inches toward the rear of the unit. No equipment, such as air actuators, proportioning valves, etc. shall extend from the exterior rear of the cab. All valves, actuators, etc. shall be mounted inside or under the cab.

A clean frame rail (inside and outside) shall be provided on the passenger's side from the back of the cab to the front of the rear spring hanger. A clean frame rail shall also be provided from immediately behind the rear spring hanger to the end of the frame on both frame rails.

The frame shall be compatible for installation of a NTEA Class 40 arm type hoist.

**EXAMPLE:** Heil Model No. 1721.

Air lines and wiring/cables shall be routed along the frame and mounted at the rear using bulkhead fittings, through a steel mounting plate.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

Synthetic lubricants and extended life coolants shall be provided where available. Long life (Gates Blue Stripe or entity Ordering Entity Approved Equal) radiator hoses and silicone water lines shall also be provided.

Units shall be equipped with the following, to facilitate entity mounting of ancillary equipment intragral in the vehicle electrical system shall be installed by the OEM as either standard or optional equipment: 4 dash mounted toggle (on/off) switches with power source to each switch. Power to switches shall be supplied from an easily accessible power strip or junction box. Each terminal on the power strip or junction box shall be supplied with power and each circuit protected by a minimum 20 amp manual or automatic reset circuit breaker(s) - SAE type III with trip indicators. Installation shall be that of and/or equal to OEM quality.

Tire tread shall be highway type, identical on front and rear axles. EXAMPLE: Goodyear G149, Michelin XZE, or entity Ordering Entity Approved Equal. Vendor shall provide tire make, model, and performance information for entity approval, prior to vehicle order. Wheels shall be HUB piloted, 10-hole disc type.

**OPTIONS:** Each unit shall be equipped with the following options and special equipment. The price for the following options and equipment shall be included in the DT-1 and DT-2 option prices:No. 16 - Alternator, 160 amp minimum

No. 37 - Color, manufacturer's standard white

No. 57 - Fuel Tank, Center Step Type, shall not extend past rear of cab more than inches 3 inches

No. 93 - Radio Frequency Interference (RFI) Package

No. 96 - Seat, Passenger, High Back Air Ride

No. 124 - Tow Devices

No. 258 - Vinyl Seats

**NOTE:** Hydraulic pump and PTO will be furnished and installed by entity after delivery.

Documents: Owner's manual, line setting ticket (listing the component of the chassis), spare keys, and warranty papers shall be provided for each chassis. All delivery documents shall list the entity's requisition number for reference. Documents, including one additional owner's manual for office use, shall be delivered to entity specified location. Manufacturer's Statement of Origin (MSO) shall be provided to ordering entity. Please contact ordering entity prior to filling out the MSO and Form 130U.

Deliveries: Units shall be delivered completely assembled, serviced, adjusted, and all equipment including standard and optional equipment shall be installed and the units shall be ready for continuous operation. On-site (F.O.B. point) dealer servicing or other type work will not be permitted. Units that have low fluid levels or other areas requiring service will not be accepted. Units not meeting specification requirements may not be stored at the Texas Department of Criminal Justice (TDCJ).

Deliveries of chassis ordered F.O.B. TDCJ facilities shall be made only between the hours of 8:00 a.m. and 12:00 p.m. (noon) Monday through Friday, excluding state and federal holidays. TxDOT Inspector (903-928-2217 extension 326) shall be notified 24 hours in advance of any deliveries to the TDCJ facilities.

Entity Inspection: Each unit received will be thoroughly inspected to insure strict purchase specification compliance. Units not fully meeting specification requirements will be rejected at the vendor's expense. Acceptance inspection of units delivered will not take more than 5 working days, weather permitting.

Vendor shall notify entity contact at least 3 working days prior to making initial delivery from each purchase order. Upon such notification, the entity, may, at its option, make a pre-delivery inspection and road test at the current location of the vehicles, (within the state of Texas). Vehicles that fail to pass the inspection will not be accepted until necessary repairs or corrections are made.

Warranty: Units shall be warranted against defects in materials and workmanship for a period of not less than 12 months after the vehicle has been placed into service and shall cover 100 percent parts and labor for the unit. Should manufacturer's standard warranty exceed these requirements, then the manufacturer's standard warranty shall be in effect.

**A delayed warranty in-service start date will be requested and the paperwork necessary to obtain such warranty shall be provided and delivered with each chassis.**

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

For units delivered to TDCJ, vendor shall be responsible for pick up and delivery of chassis, which require servicing/repair while the units are located at TDCJ facilities, within 2 working days after notification from either ordering entity and/or TDCJ.

### **188. 6 CUBIC YARD DUMP BODY INSTALLED**

### **189. 6 CUBIC YARD DUMP TRUCK CHASSIS, SNOW PLOW CONFIGURATION (DT-2)**

Statement of Intended Use: These chassis will be up-fitted by state forces for use in 6 cubic yard dump truck and snow plowing applications. Units shall be certifiable as straight trucks.

Chassis shall meet all requirements of TxDOT Configuration DT-1 (Option No. 187) and to include the following additional equipment:

Option No.19 -12,000 pound front axle, with corresponding increase in vehicle front GAWR. GVWR shall be minimum 33,000 pounds.

#### **24" Front Frame Extensions required on the 990D, DT – 2 model**

Electrically heated mirrors with dash mounted controls.

Stationary grille - shall maintain a minimum 70 degree forward tilt.

Frame shall be rated at a minimum 2,134,800 RBM

Fender mounted turn signals.

110 volt engine block heater.

Engine access panels and engine intake snow valve: Required from the OEM as either standard or optional equipment.

### **190. PLATFORM DUMP BODY, WOODEN FLOOR (See Section F.2.)**

### **191. LIFT AND DUMP TAILGATE :**

Electric/ hydraulic tailgate shall provide lift and dump functions for use on trucks with up to a 15,000 lb. GVWR. Shall be installed and ready for operation.

#### **1. DESIGN:** The lift and dump tailgate shall:

- 1.1. Lift a minimum 1,300 pounds from ground level to flush with the truck bed.
- 1.2. Close flush against lift body and act as a tailgate.
- 1.3. Not extend more than six inches (152 mm) above truck bed when closed.
- 1.4. Be secured in stowed position with a safety latch.
- 1.5. Be constructed of heavy-duty diamond tread-plate steel. Platform depth shall be a minimum 26 inches, including an angled loading ramp for use with freight dollies.
- 1.6. Be constructed to withstand off-center loads and to prevent twist and flex of platform.
- 1.7. Be equipped with fittings for lubrication of all major friction or wear points.
- 1.8. Include light kit(s) if lift will obstruct the truck's original rear lights and reflectors.

#### **2. POWER:**

- 2.1. Shall be powered by the vehicle's electrical system through a fused connection.
- 2.2. Shall provide power up, power down, and manual tailgate closure.
- 2.3. Built-in relief valve shall be provided to protect against overload.
- 2.4. Installed power unit shall be protected from weather.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

### **3. CONTROLS:**

- 3.1. Control(s) for raising, lowering, stopping, and holding the platform at any position shall be furnished at the rear of the truck bed.
- 3.2. Shall return to neutral or off position automatically when released.
- 3.3. Installed controls shall be protected from weather.
- 3.4. Shall be readily accessible for servicing and maintenance.
4. **SAFETY PLAQUES OR DECALS:** Product safety plaques or decals shall be furnished and affixed at the operator's station and at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size, and location of product safety plaques or decals shall be in accordance with the current ANSI Z535.4.
5. **PAINTING:** The unit shall be painted an approved manufacturer's standard lead free white color, except for rubber, plastic, and metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.

### **192. ELECTRIC/HYDRAULIC 3,200 LB. CRANE**

Electric/hydraulic crane with a minimum 3,200 lb. lifting capacity at 3 ft load radius and a moment rating not less than 10,000 lb/ft, for mounting on trucks with a minimum 10,000 lb. GVWR. Crane shall provide power elevation and rotation of the boom. Crane shall meet or exceed the current OSHA 1910.180 and ANSI B30.5.

1. **LIFTING CAPACITIES:** The unit shall be powered up and down through 360-degree continuous rotation. The unit shall have the following lift capacities:
  - 1.1. At a 3 ft radius, the crane shall have a minimum capacity of 3,200 pounds., double lined, fully retracted.
  - 1.2. Shall be rated at a minimum of 900 pounds. with the boom horizontal at a radius of 15 ft.
2. **BOOM:** Boom shall hydraulically extend. Retracted length of the boom shall be a maximum 8 ft. Extended length of the boom shall be a minimum of 15 ft. Boom shall be hydraulically powered up and down. Boom shall rotate hydraulically, left and right, through a 360 degree continuous rotation. Hydraulic system shall be self contained and powered by a 12 volt vehicle electrical system. The unit shall be equipped with a boom support rest and retaining strap(s) to hold and retain the boom during transport.
3. **WINCH:** The winch shall lift a minimum of 3,200 pounds, using a double line pull. The winch shall be worm gear or planetary gear driven with the appropriate reduction. Shall be equipped with self locking worm gears or a mechanical load apportioning brake. Solenoid activated (applied) brakes are not acceptable. Cable drum shall be complete with a minimum of 62 ft of 7/32-inch galvanized aviation type cable. Cable shall be minimum 5,600 lb breaking strength. Cable shall have a swagged-on eye. Eye shall be equipped with a swivel type traveling block, connected to the eye by means of a safety hook. Traveling block assembly shall be equipped with a minimum 1.65 ton capacity lifting hook. Lifting hook shall be equipped with a spring loaded safety latch. Load line shall be power up and down.
4. **MOTOR:** The winch shall be powered by a minimum 1.8 horsepower, 12 volt DC operated, reversible electric motor. Horsepower shall be sufficient for routine operation at rated capacity. A minimum of 24 ft of #1 battery cable with grommets, frame clips, high-current plug-in connector for the unit, and a terminal connector for the 12 volt vehicle battery shall be furnished.
5. **CONTROLS:** The operation of the unit shall be by a hand-held remote pendent type control, complete with minimum 18 ft industrial grade extension cord and plug-in connector. All remote controlled relays necessary for operation shall be provided.



## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

6. **LOAD SENSOR:** A load sensing device meeting OSHA requirements shall be furnished to prevent overloading. The sensor shall stop winch up, boom extension, and boom down operations, but shall allow power rotation, and hoist down operation.
7. **ANTI-TWO BLOCK:** The unit shall be equipped with a boom-tip-mounted anti-two block device which shall prohibit the traveling block or hook assembly from coming into contact with the boom.
8. **OUTRIGGER(S):** The unit shall have crane manufacturer-recommended hydraulic or manual slide-out, pin and crank down outrigger(s) which meet all applicable ANSI standards. The outrigger(s) shall be equipped with minimum 6 inch by 8 inch foot pad(s). **JACK LEGS ARE NOT PERMITTED.**
9. **BASE PLATE:** Shall be constructed of steel plate a minimum of  $\frac{5}{8}$  inch thick. The rectangular dimensions of the base plate shall be approximately 14 inches by 14 inches, with a range of tolerance of  $\pm 2$  inches.
10. **MOUNTING:** Crane shall be mounted in accordance with the crane manufacturer's instructions. When mounted on a service, the service body must be factory reinforced as an OEM upgrade by the original manufacture of the body and should be rated to the total foot pounds of the crane installed. No aftermarket or shop fabricated reinforcements are acceptable.
11. **LOAD CAPACITY CHART:** A permanent load capacity chart with gravity activated boom angle indicator shall be located near the operator's position, easily visible to the operator. The load capacity chart shall show rated load capacities at various radii resulting from different boom angles and lengths.
12. **SAFETY PLAQUES OR DECALS:** Safety plaques or decals shall be furnished and affixed at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size, and location of product safety plaques or decals shall be in accordance with the current ANSI Z535.4.
13. **PAINTING:** The unit shall be painted an approved manufacturer's standard lead free white color, except for rubber, plastic, and metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.
14. **MANUAL(S):** Manual(s) containing illustrated parts list(s) and operating and service instructions for the crane shall be delivered with each
193. Factory Installed Silicone with Aircraft Clamps and Radiator hose.
194. Vehicle keyed-alike at factory.
195. Rear Doors lock/handles inoperable at factory.
196. Rear Window Switch Delete (include rear power window switches operable on drivers door only at factory.
197. Extra set of vehicle keys.
198. **OUTRIGGERS (S) TO THE ELECTRIC/HYDRAULIC 3,200 LB. CRANE (OPTION 192):** Single Outrigger – The unit shall have crane manufacturer-recommended hydraulic or manual slide-out, pin and crank down outrigger(s) which meet all applicable ANSI standards. The Outrigger(s) shall be equipped with minimum 6 inch by 8 inch foot pad (s).
199. **OUTRIGGERS (S) TO THE ELECTRIC/HYDRAULIC 4,000 LB. CRANE (OPTION 204):** Duel Outrigger Assemblies – The unit shall have crane manufacturer-recommended hydraulic or manual slide-out, pin and crank down outrigger(s) which meet all applicable ANSI standards. The outrigger(s) shall be equipped with minimum 6 inch by 8 inch foot pad(s).
200. **LEFT BLANK**
201. **SLIDING SIDE DOOR (for Cargo and Passenger Vans)**
202. **SWING –OUT Doors: Drivers** side swing out doors. for Cargo Vans)
203. **CARGO DOOR:** Left Side, with RH Swing-Out Doors on Chevy/GMC G13405 or H13405.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

### **204. ELECTRIC/HYDRAULIC 4,000 LB. CRANE (Series 930, 950, 960, 970, 980, 981, & 990)**

Electric/hydraulic crane with a minimum 4,000 lb. lifting capacity at 4 ft load radius using single or double line only and a moment rating not less than 16,000 lb/ft for mounting on trucks with a minimum 11,000 lb.

1. LIFTING CAPACITIES: The unit shall be powered up and down through 360-degree continuous rotation. The unit shall have the following lift capacities:
  - 1.1. At a 4 ft radius, the crane shall have a minimum capacity of 4,000 pounds, fully retracted.
  - 1.2. Shall be rated at a minimum of 1000 pounds. with the boom horizontal at a radius of 16 ft.
2. BOOM: Boom shall hydraulically extend. Retracted length of the boom shall be a maximum 8 ft. Extended length of the boom shall be a minimum of 16 ft. Boom shall be hydraulically powered up and down. Boom shall rotate hydraulically, left and right, through a 360 degree continuous rotation. Hydraulic system shall be self contained and powered by a 12 volt vehicle electrical system. The unit shall be equipped with a boom support rest and retaining strap(s) to hold and retain the boom during transport.
3. WINCH: The winch shall lift a minimum of 4,000 pounds, using a single or double line pull. The winch shall be worm gear or planetary gear driven with the appropriate reduction. Shall be equipped with self locking worm gears or a mechanical load apportioning brake. Solenoid activated (applied) brakes are not acceptable. Cable drum shall be complete with a minimum of 80 ft of 5/16 inch galvanized aviation type cable. Cable shall be minimum 9800 lb breaking strength. Cable shall have a swagged-on eye. Eye shall be equipped with a swivel type traveling block, connected to the eye by means of a safety hook. Traveling block assembly shall be equipped with a minimum 1.65 ton capacity lifting hook. Lifting hook shall be equipped with a spring loaded safety latch. Load line shall be power up and down.
4. MOTOR: The winch shall be powered by a minimum 1.8 horsepower, 12 volt DC operated, reversible electric motor. Horsepower shall be sufficient for routine operation at rated capacity. A minimum of 25 ft of #1 battery cable with grommets, frame clips, high-current plug-in connector for the unit, and a terminal connector for the 12 volt vehicle battery shall be furnished.
5. CONTROLS: The operation of the unit shall be by a hand-held remote pendent type control, complete with minimum 18 ft industrial grade extension cord and plug-in connector. All remote controlled relays necessary for operation shall be provided.
6. LOAD SENSOR: A load sensing device meeting OSHA requirements shall be furnished to prevent overloading. The sensor shall stop winch up, boom extension, and boom down operations, but shall allow power rotation, and hoist down operation.
7. ANTI-TWO BLOCK: The unit shall be equipped with a boom-tip-mounted anti-two block device which shall prohibit the traveling block or hook assembly from coming into contact with the boom.
8. OUTRIGGER(S): The unit shall have crane manufacturer-recommended hydraulic or manual slide-out, pin and crank down dual outrigger(s) which meet all applicable ANSI standards. The outrigger(s) shall be equipped with minimum 6 inch by 8 inch foot pad(s). **JACK LEGS ARE NOT PERMITTED.**
9. BASE PLATE: Shall be constructed of steel plate a minimum of 5/8 inch thick. The rectangular dimensions of the base plate shall be approximately 14 inches by 14 inches, with a range of tolerance of  $\pm 2$  inches.
10. MOUNTING: Crane shall be mounted in accordance with the crane manufacturer's instructions. When mounted on a service, the service service body must be factory reinforced as an OEM upgrade by the original manufacture of the body and should be rated to the total foot pounds of the crane installed. No aftermarket or shop fabricated reinforcement and acceptable.
11. LOAD CAPACITY CHART: A permanent load capacity chart with gravity activated boom angle indicator shall be located near the operator's position, easily visible to the operator. The load capacity chart shall show rated load capacities at various radii resulting from different boom angles and lengths.

## **SECTION E - OPTIONAL EQUIPMENT SPECIFICATIONS(continued):**

12. **SAFETY PLAQUES OR DECALS:** Safety plaques or decals shall be furnished and affixed at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size, and location of product safety plaques or decals shall be in accordance with the current ANSI Z535.4.
13. **PAINTING:** The unit shall be painted an approved manufacturer's standard lead free white color, except for rubber, plastic, and metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.

**MANUAL(S):** Manual(s) containing illustrated parts list(s) and operating and service instructions for the crane shall be delivered with each

**205. 205 THROUGH 257 – LEFT BLANK**

**258. SEAT FABRIC, VINYL (for all Series)**

**259. 259 THROUGH 274 – Left Blank**

**275. TRANSMISSION, AUTOMATIC (for medium-duty trucks, Series 950 through 990):** AUTOMATIC TRANSMISSIONS, IF REQUIRED, SHALL BE SPECIFIED BY THE REQUESTING ENTITY, INCLUDING POWER TAKE-OFF (PTO) REQUIREMENTS, IF APPLICABLE.

**EXAMPLE: ALLISON CONSTRUCTION MODEL WILL MATCH THE HORSE POWER OF THE ENGINE.**

**276. 276 THROUGH 289 LEFT BLANK**

**290. SEATS, BUCKET, CLOTH or CLOTH AND VINYL WHERE AVAILABLE, FRONT (for Series 990 and 1200 only)**

**291. LEFT BLANK**

**292. LEFT BLANK**

**293. TAILGATE WITH POP-UP WINDOW (for Series 650 and 655 only)**

**294. LEFT BLANK**

**295. LEFT BLANK**

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**299. LEFT BLANK**

**300. VISIBILITY PACKAGE:** Vendor shall furnish and install on opt 67 amber LEB mini-lightbar in the center the vehicle cab, or on headache rack if opt. 67 is ordered, with one strobe light one each side. Controls shall be mounted in the cab. Strobes to be configured as: Standard (both amber) or Safety (blue on driver's side and amber on passenger side) as specified. When Safety package is ordered, an isolator switch shall be installed in the cab, to allow the blue light to be turned off and leave the remaining lights flashing. Ordering entity shall note Standard or Safety Blue is required.

## **SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE:**

The specific requirements for the Contractor's, Platform, and Stake Dump Bodies are given in Paragraphs F.1, F.2, and F.3, respectively. Section F.4, Installation and Mounting, and Section F.5, Painting, cover these requirements for all three types of bodies. Required dimensions are nominal.

### **F.1. CONTRACTOR'S TYPE DUMP BODY (See Options 178 through 183):**

Sizes Available: 12', 14' & 16' long

Standard Features:

Fold-down sides (both sides of bed). The contractor's bed must have 14 - 18 inch max. side height, with brackets for nominal 2 inch sideboards. Body to be constructed of minimum 10 gauge steel.

10 gauge high strength steel front and side construction with formed sloping top rail. Front is fully welded to corner posts and front cross member for maximum strength. Sides have continuously welded vertical supports with drain holes.

Equipped with brackets for 2" nominal side board extensions. End heights available in 20". Clearance lights located high on rear corner posts and three light cluster (Identification lights) located in rear apron are recessed shock resistant rubber mounted. Fully boxed high strength steel construction tail gate with two vertical braces. 10 gauge high strength steel two-piece floor with 2" radiused corners.

**NOTE: A contractor's type dump body has low profile panels for easy access from the ground.**

**BODY SIZES AND DIMENSIONS** - The front and rear of the body shall be 6 inches higher than the sides. The sizes and dimensions of the bodies used on the various truck series shall be as follows:

**1.1.1.** Dimensions of the bodies shall be as shown for the truck series listed in the following table:

<b>Series Number</b>	<b>Wheelbase (nominal)</b>	<b>Cab-to-Axle (nominal)</b>	<b>Recommended Body Length</b>	<b>Body Width</b>
930	135.5 inches	60/84 inches	96/120 inch	70-84 inches
950	128 inches	60 inches	96 inches	84 inches
960 - 990	126 inches	84 inches	98 inches	84 inches
960 - 990	150 inches	84 inches	120 inches	84 inches

**1.1.2. Dump Body Capacities:** When so specified in the Invitation for Bid, medium-duty trucks shall be equipped with dump bodies having capacities as follows:

<b><u>SERIES</u></b>	<b><u>CAPACITY (cubic yards)</u></b>
930	2-3
960	3
970, and, 980	4
985, and 990	5

Not available on Series 971 and 981.

**1.2. STEEL:** The contractor's type dump body (including floor) shall be constructed from 0.1345 inch high-strength low-alloy steel (minimum yield point of 30,000 PSI and minimum tensile strength of 40,000 PSI) conforming to ASTM Standards A-607; or 0.1345 inch high carbon steel may be used. Standard AISI tolerances are allowed for the metal thickness specified.

**1.3. CONSTRUCTION AND COMPONENT REQUIREMENTS:** Body shall include but not be limited to the following components:

**1.3.1. Braces:** Body shall have tapered box type side braces installed with continuous weld as follows:

**1.3.1.1. 96 inch body:** At least 2 braces on each side and 1 at each rear corner.

**1.3.1.2. 120 inch body and above:** At least 3 braces on each side and 1 at each rear corner.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

- 1.3.2. Cross Members:** Cross member spacing shall be the manufacturer's standard spacing. Cross members which form the front and rear outer box frame or to which the hoist is anchored shall be 3 inch minimum. 4.1 pound-foot structural steel channel. The other cross members shall be either the above structural steel channel or minimum 3 inch, 2.98 pound-foot high-strength junior I-beam. If a cross member must be cut to provide hoist clearance, this member may be 3/8 inch by 3 inch by 1-1/2 inch steel angle. Only 1 cross member may be constructed of steel angle and only then if it must be cut to provide hoist clearance. Body shall have cross members as follows:
- 1.3.2.1. 96 inch body:** A minimum of 7 cross members.
- 1.3.2.2. 120 inch body:** A minimum of 9 cross members.
- 1.3.3. One-half Cab Protector:** One-half cab protector shall cover approximately one-half of the truck cab (minimum 20 inch overhang). The material shall be as specified in Section 1.2.(above).
- 1.3.4. Back-up Alarm:** Unit shall be complete with back-up alarm in compliance with applicable OSHA requirements.
- 1.3.5. Floor/Sidewall Joints:** The joint between the side and floor of the body shall be one of the following types of construction to facilitate body clean-out:
- 1.3.5.1.** A 2 inch minimum radius, or,
- 1.3.5.2.** Body sheet with a 2 inch minimum 45 degree break (no welding) or,
- 1.3.5.3.** Square corners. reference (price being equal) will be given in the above order.
- 1.3.6. Hoist and Hoist Sub-frame:** The design of the hoist shall be the one customarily offered to the commercial trade for the body and hoist specified here. Hoist shall be double acting and have a positive stop incorporated to prevent hoist from reversing or locking up, and shall be complete.
- 1.3.6.1.** Power hoists for two cubic yard dump bodies shall be equipped with a 12 volt electric/hydraulic drop hinge low profile scissors hoist. A hydraulic type is preferred where available.
- 1.3.6.2.** Power hoists for 3 and 4 cubic yard capacities shall be NTEA minimum Class 20 arm type; on 96 inch dump body and minimum Class 30 arm type; on 120 inch dump body from current chart on classification in effect. Power hoists for 5 cubic yard capacities shall be NTEA minimum Class 40 arm type on both the 96 inch and the 120 inch dump bodies. The following paragraphs (1.3.6.3 through 1.3.6.7) apply only to 3-5 cubic yard bodies:
- 1.3.6.3.** The 96-120 inch dump body hoist shall have a 2 inch minimum diameter piston rod with a nominal stroke of 13-1/2 inches.
- 1.3.6.4.** The 144 inch dump body hoist shall have a 2-3/16 inch minimum diameter piston rod with a nominal stroke of 20 inches.
- 1.3.6.5.** The hoist shall have an anti-friction bearing pump with a minimum capacity of 12.7 GPM at 1,000 RPM and 1,000 PSI (sleeve bearing pump is not acceptable) and a hoist cylinder bore of not less than 7 inches".
- 1.3.6.6.** Power hoists shall have at least a 3-stage valve to: (1) raise, (2) hold and (3) lower the body.
- 1.3.6.7.** Hoist manufacturer's identification plate shall show the hoist model, class, and serial numbers.

**NOTE:** HOIST MUST BE REPAIRABLE TYPE HAVING REPLACEABLE BEARINGS, GASKETS, SEALS, AND OTHER LESS DURABLE PARTS.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

**1.3.7. Longitudinal Sills:** A minimum of 2 are required which shall be manufactured from minimum 5 inch, 6.7 pound-foot structural steel channel or 5 inch, 10 pound/foot steel I-beam.

**1.3.8. Power-Take-Off (PTO):** PTO for dump operation shall be at least single speed. The output shaft shall have a speed (RPM) of not less than 50 percent or more than 80 percent of engine RPM. The output shaft shall have a speed (RPM) of approximately 90 percent on diesel engines.

**NOTE:** PTO MUST BE REPAIRABLE TYPE HAVING REPLACEABLE BEARINGS, GASKETS, SEALS, AND OTHER LESS DURABLE PARTS.

**NOTE:** Some light-duty trucks with automatic transmissions require an electric-powered PTO if ordered. If furnished, it shall be equipped with in-cab push-button or cable controls.

**1.3.9. Rub Rails:** Body shall have rub rails with a minimum slope of 30 degrees, constructed from 0.1345 inch steel (standard AISI tolerances) and installed the full length of both sides and the tailgate.

**1.3.10. Safety Strut (Brace):** Each body shall be equipped with a "safety strut" designed to support the empty dump body in a raised position at an angle of approximately 45 degrees from the hoist sub-frame. The safety strut (brace) shall conform to OSHA Regulations, Section 1926.601 Motor Vehicles (b) (10) Trucks with Dump Bodies.

**1.3.11. Sideboard Slots:** The body shall have slots in the sides to accommodate sideboards.

**1.3.12. Tailgate:** Body shall be equipped with a double acting tailgate. Tailgate shall be designed and installed to close flush with body, and eliminate/minimize material loss between the tailgate and the dump body when chained in the horizontal position. The design and installation of the tailgate shall also prevent damage to the body/lights/reflectors when the tailgate is unlatched and deployed. Manufacturer's standard bracing shall be installed by continuous weld. Inner and outer panels of the tailgate shall also be connected by continuous weld. Spot welding is not acceptable. The tailgate shall be 6 inches higher than the sides of the body and shall consist of, but shall not be limited to, the following:

**1.3.12.1. Upper Hinges and Hinge Pins:** The tailgate shall be fitted with upper offset hinges of minimum 0.75 inch thick steel plate. These hinges shall not protrude above the sideboard gussets. The hinge pins shall be minimum 1 inch diameter. Supports made from minimum 0.5 inch thick steel shall be provided for each end of both upper hinge pins. Drilling of the sideboard gussets and reinforcing with minimum 0.375 inch thick steel plate for the upper hinge support is acceptable. Means shall be provided for adjusting the amount of tailgate opening when opened at the bottom and hinged at the top. Tailgate hinge pins shall be constructed with stops, to prevent lateral tailgate movement or accidental unlatching.

**1.3.12.2. Lower Body Hardware and Hinge Pins:** The lower body hardware on the tailgate shall be overhead hook type latch designed to hook and retain the hinge pins in supports on each side of the tailgate. The diameter of the lower hinge pins shall be minimum 1.25 inches. Means shall be provided to hold the tailgate in the same plane as the dump body floor when opened at the top and hinged at the bottom.

**1.3.12.3. Operation and Control:** A lever control for securing and releasing the lower tailgate latches shall be provided. This lever control shall be positioned on front of the body at the left so that operation of the lever shall not prevent opening the left cab door.

**F.2 PLATFORM TYPE DUMP BODY (See Options 157, 162, 177, and 190):**

**2.1. BODY SIZES AND DIMENSIONS:** The sizes and dimensions of the bodies used on the various truck series shall be as follows:

**2.1.1. Length:** 144 inch minimum unless otherwise specified in the Invitation for Bid.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

- 2.1.2. **Width:**
  - 2.1.2.1. **Light-Duty Truck Bodies:** Minimum 80 inches to maximum 84 inches unless otherwise specified in the Invitation for Bid.
  - 2.1.2.2. **Medium-Duty Truck Bodies:** Minimum 94 inches to maximum 96 inches unless otherwise specified in the Invitation for Bid.
- 2.2. **FLOORING:**
  - 2.2.1. **Steel:** Steel platform type dump bodies (including floor) shall be constructed from 0.1345 inch high-strength low-alloy steel (minimum yield point of 50,000 PSI and minimum tensile strength of 70,000 PSI) conforming to ASTM standards A-606; or 0.1345 inch high carbon steel may be used. Standard AISI tolerances are allowed for the metal thickness specified.
  - 2.2.2. **Wood:** Wood platform type dump bodies (including floor) shall be constructed from 1-1/2 inch finished thickness, kiln-dried, Womanzized or Penta-treated lumber, free from such defects as loose knots, knotholes, excessive warp, or edge splits. Each section shall be securely fastened to each cross member by recessed screws or bolts and installed flush with side rails.
- 2.3. **CONSTRUCTION AND COMPONENT REQUIREMENTS:** Body shall include but shall not be limited to the following components:
  - 2.3.1. **Rails:**
    - 2.3.1.1. **Steel Body:** The floor edges shall be enclosed with minimum 5 inch, 12-gauge, high-strength steel channel rails installed on both ends and on both sides.
    - 2.3.1.2. **Wood Body:** The floor edges shall be enclosed with rails installed on both ends and on both sides as follows:
      - 2.3.1.2.1. **End Rails:** Minimum 12-gauge formed steel channel.
      - 2.3.1.2.2. **Side Rails:** Minimum 11-gauge formed steel channel.
  - 2.3.2. **Cross Members:** Cross members shaping shall be the manufacturer's standard spacing with a minimum of 8 cross members on dump bodies spacing should be a minimum of 12" centers (including front and rear members) which shall be minimum 3 inch, 4.1 pound-foot structural steel channel, 3 inch, 2.98 pound-foot high-strength steel junior I-beam , or 4 inch formed, 11-gauge steel channel.
  - 2.3.3. **Hoist and Hoist Sub-frame:** Body shall be equipped with a full length hoist sub-frame of not less than 0.250 inch steel channel. The design of the hoist shall hydraulic and be one customarily offered to the commercial trade for the body and hoist specified here. Hydraulic hoist shall be double arm lift type and shall have a positive stop incorporated to prevent hoist lift arms from reversing or locking up, and shall be complete with automotive drive parts. May be equipped with a single cylinder, scissor type hoist in lieu of the double arm lift type.

**NOTE:** HOIST SUB-FRAME NOT REQUIRED WITH SCISSOR TYPE HOIST.

    - 2.3.3.1. The hoist shall have an anti-friction bearing pump with a minimum capacity of 12.7 GPM at 1,000 PSI (Sleeve-bearing pump is not acceptable) and a hoist cylinder bore of not less than 7 inches; or,
    - 2.3.3.2. The hoist shall have an anti-friction bearing pump with a minimum capacity of 10.9 GPM at 1,000 RPM and 3,000 PSI with hoist cylinder bore of not less than 5 inches.
    - 2.3.3.3. Power hoists shall have at least a 3-stage control valve to: (1) raise, (2) hold and, (3) lower the body.
    - 2.3.3.4. Power hoist shall be NTEA minimum Class 30 arm type or Class D scissor type on 144 inch body from current chart on classifications in effect.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

- 2.3.3.5.** Hoist manufacturer's identification plate shall show the hoist model, class, and serial numbers..

**NOTE:** HOIST MUST BE REPAIRABLE TYPE HAVING REPLACEABLE BEARINGS, GASKETS, SEALS, AND OTHER LESS DURABLE PARTS.

- 2.3.4. Longitudinal Sills:** A minimum of 2 are required which shall be manufactured from minimum 5 inch, 6.7 pound-foot structural steel channel or 5 inch, 10 pound-foot steel I-beam.

- 2.3.5. Power-Take-Off (PTO):** PTO for dump operation shall be at least single speed. The output shaft shall have a speed (RPM) of not less than 50 percent or more than 80 percent of engine RPM. The output shaft shall have a speed (RPM) of approximately 110 percent on diesel engines.

**NOTE:** PTO MUST BE REPAIRABLE TYPE HAVING REPLACEABLE BEARINGS, GASKETS, SEALS, AND OTHER LESS DURABLE PARTS.

**NOTE:** Some light-duty trucks with automatic transmissions require an electric-powered PTO, if ordered. If furnished, it shall be equipped with in-cab push-button or cable controls.

- 2.3.6. Protector, Cab (Bulkhead Type):** Body shall be equipped with a bulkhead type cab protector. This protector shall be designed to prevent shifting of load and penetrating or crushing of the driver's compartment. It shall be constructed of minimum 11-gauge steel plate with a window to provide visibility. The window shall be made of minimum 11-gauge diamond-punched steel, or covered with minimum 9-gauge expanded metal diamond mesh. Cab protector dimensions shall be designed to fit the truck cab and shall not interfere with the driver's rearward visibility.

Cab protector shall be mounted using knee-brace style reinforcements welded to the bottom of the outer body rail. Top-mounted angle gusset type mounting is not acceptable.

- 2.3.7. Safety Strut (Brace):** Body shall be equipped with a "safety strut" designed to support the empty dump body in a raised position at an angle of approximately 45 degrees from the truck frame. The safety strut (brace) shall conform to OSHA. Regulations, Section 1926.601 Motor Vehicles (b) (10) Trucks with Dump Bodies.
- 2.3.8. Stake Pockets:** Body shall have a minimum of 5 stake pockets on each side and a minimum of 4 on each end.
- 2.3.9. Operating Lever Latch:** Body shall be equipped with a latch or other device which will prevent accidental starting or tripping of the mechanism.
- 2.3.10. Trip Handles:** Trip handles for tailgates of dump bodies shall be so arranged that, in dumping, the operator will be in the clear.

**F.3 STAKE TYPE DUMP BODY (See Options 161, 168, 176, and 186):**

**3.1. DIMENSIONS:**

- 3.1.1. Length:** Minimum 108 inches, unless otherwise specified in the Invitation for Bid.

**3.1.2. Width:**

- 3.1.2.1. Light-Duty Truck Bodies:** Minimum 86 inches.

- 3.1.2.2. Medium-Duty Truck Bodies:** Minimum 94 inches to maximum 96 inches.

- 3.1.2.3. Height of Stake Sides:** Minimum 40 inches

**3.2. CONSTRUCTION AND COMPONENT REQUIREMENTS:** Body shall include, but not be limited to the following components:

- 3.2.1. Cross Members:** Cross member spacing shall be the manufacturer's standard spacing. Body shall have a minimum of 5 cross members which shall be minimum 4 inch, 11-gauge formed steel channel.



**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

**3.2.2. Flooring:**

**3.2.2.1. Steel:** Body (including floor) shall be constructed from 0.1345 inch high-strength low-alloy steel (minimum yield point of 50,000 PSI and minimum tensile strength of 70,000 PSI) conforming to ASTM standards A-606; or 0.1345 inch high carbon steel may be used. Standard AISI tolerances are allowed for the metal thickness specified.

**3.2.2.2. Wood:** Body (including floor) shall be constructed from 1-1/2 inch finished thickness, kiln-dried, Womanized or Penta-treated lumber, free from such defects as loose knots, knotholes, excessive warp, or edge splits. Each section shall be securely fastened to each cross member by recessed screws or bolts and installed flush with side rails.

**3.2.3. Hoist:** Body shall be equipped with a single cylinder scissor type conversion hoist mounted under the body.

**3.2.3.1.** The hoist pump shall have a capacity of not less than 6.75 GPM at 1,000 RPM and 1,000 PSI.

**NOTE:** PUMP SHALL BE REPAIRABLE TYPE WITH REPLACEABLE BEARINGS, GASKETS, SEALS AND OTHER LESS DURABLE PARTS.

**3.2.3.2.** The hoist cylinder shall have a nominal bore of 4.0 inches and a nominal 1-3/4 inch diameter piston rod.

**3.2.3.3.** Power hoists shall have at least a 3-stage control valve to: (1) raise, (2) hold and, (3) lower the body.

**3.2.3.4.** Power hoist on a Stake Dump Body shall be NTEA minimum Class B scissor type for light-duty trucks and minimum NTEA Class C scissor type for Medium-duty trucks, from current chart on classifications in effect.

**3.2.3.5.** Hoist manufacturer's identification plate shall show the hoist model, class, and serial numbers.

**3.2.4. Longitudinal Sills:** A minimum of 2 are required which shall be minimum 6 inch, 12-gauge formed steel channel.

**3.2.5. Power-Take-Off (PTO):** PTO for dump operation shall be at least single speed. The output shaft shall have a speed (RPM) of not less than 50 percent or more than 80 percent of engine RPM. The output shaft shall have a speed (RPM) of approximately 90 percent on diesel engines.

**NOTE:** PTO MUST BE REPAIRABLE TYPE HAVING REPLACEABLE BEARINGS, GASKETS, SEALS, AND OTHER LESS DURABLE PARTS.

**NOTE:** Some light-duty trucks with automatic or manual transmission require an electric-powered PTO, if ordered.

**3.2.6. Protector, Cab (Bulkhead Type):** Body shall be equipped with a bulkhead type cab protector, which shall be a part of the body. This protector shall be designed to prevent shifting of load and penetrating or crushing of the driver's compartment. It shall be constructed of minimum 11-gauge steel plate with a window to provide visibility. The window shall be made of minimum 11-gauge diamond-punched steel, or covered with minimum 9-gauge expanded metal diamond mesh. Cab protector dimensions shall be designed to fit the truck cab and shall not interfere with the driver's rearward visibility.

Cab protector shall be mounted using knee-brace style reinforcements welded to the bottom of the outer body rail. Top-mounted angle gusset type mounting is not acceptable.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

- 3.2.7. Rails:** The floor edges shall be enclosed with rails installed on both ends and on both sides as follows:
  - 3.2.7.1. End Rails:** Minimum 12-gauge formed steel channel.
  - 3.2.7.2. Side Rails:** Minimum 14-gauge formed steel channel.
- 3.2.8. Safety Strut (Brace):** Each body shall be equipped with a "safety strut" designed to support the empty dump body in a raised position at an angle of approximately 45 degrees from the truck frame. The safety strut (brace) shall conform to OSHA Regulations, Section 1926.601 Motor Vehicles, (b) (10) Trucks with Dump Bodies.
- 3.2.9. Stake Rack Sections:** Body shall have removable stake rack sections at least 40 inches high measured from the top to the floor rail after installation. Each stake rack section shall be equipped with the necessary hardware to lock each section to adjacent sections. 2 rack sections shall be provided on each side, and 2 on the rear of each stake dump body. Each stake rack section shall have a minimum of 4 horizontal slats with no more than a 7 inch gap between them. The slats shall be constructed from minimum 18-gauge corrugated steel with rounded corners and smooth edges. Each slat shall be securely fastened to 2 steel stakes.
- 3.2.10. Stakes and Stake Pockets:** Body shall be provided with the standard number of stake pockets for this size body. The stakes shall be constructed of minimum 16-gauge corrugated steel and the stakes shall be designed to fit snugly and rigidly inside the stake pockets. Readily accessible lock down or latching system mechanisms shall be provided.

**F.4 INSTALLATION AND MOUNTING:** The installation and mounting of each of these types of bodies shall be in accordance with the body and hoist manufacturer's instructions except for the requirements specified here and in Paragraphs A.4.4. through A.4.9.

**NOTE:** ALL LUBRICATION POINTS ON DUMP EQUIPMENT, INCLUDING DRIVE SHAFT ASSEMBLY FROM PTO TO HOIST PUMP, SHALL BE THOROUGHLY LUBRICATED BEFORE DELIVERY.

- 4.1. BODY-CAB CLEARANCE:** Body-cab clearance of the hydraulic hoist/dump body and the cab shall be a minimum of 2 inches and a maximum of 4 inches with a 3 inch clearance preferred.
- 4.2. DRIVE SHAFT HANGER BEARINGS:** Drive shaft from the center of the PTO U-joint to the center of the hoist pump U-joint longer than 45 inches shall be 2-piece and equipped with hanger bearings.
- 4.3. DRIVE SHAFT ANGULARITY:** Angularity of drive shaft from PTO output shaft to pump shall be no greater than 5 degrees between any 2 adjacent shafts to eliminate excessive U-joint wear..
- 4.4. CAB DUMP CONTROLS:** Cab dump controls for the contractor's and platform dump bodies shall be mounted through the floor unless otherwise specified in the Invitation for Bid. The size of the cut-out for the cab control levers shall be held to the absolute minimum required for proper operation. The cut-out shall be sealed watertight. The controls for the stake dump body shall be the cable type and mounted in the cab.
- 4.5. CAB DUMP CONTROL SAFETY DEVICE:** Trucks with lever- or cable-operated dump bodies shall be equipped with an enclosure or other safety device which will prevent accidental tripping of the dump body activation rods (controls) from outside the truck cab. The dump control safety device shall conform to OSHA Regulations, Section 1926.601 Motor Vehicles (b) (10) Trucks with Dump Bodies.
- 4.6. WIRING:** All electrical wiring for the dump body shall be insulated and shall be enclosed in a fibrous loom, plastic loom, or flexible conduit for protection from external damage and short circuits. Wiring shall be securely fastened to the frame at intervals sufficient to prevent sagging, dragging, and for clearance of any mechanical parts.
- 4.7. LAMPS, REFLECTORS, AND SIDE MARKER LAMPS:** Lamps, reflectors, and side markers shall be furnished as required by Paragraphs A.4.8. and A.4.9., General Information and Requirements of this specification.

**SECTION F - REQUIREMENTS FOR DUMP BODIES - CONTRACTOR'S, PLATFORM, AND STAKE**  
**(continued):**

**4.8. MUD FLAPS:** Mud flaps shall be furnished as required by Section C.8a.3.

**F.5 PAINING:**

**5.1. SURFACE PREPARATION:** All surfaces of each dump body, including cross members, stake racks, and longitudinal sills, shall be thoroughly prepared and cleaned to remove all dirt, oil, grease, rust, slag, scale, and other foreign matter prior to priming. The cleaned and prepared surfaces shall be given a shop coat of primer and then thoroughly dried. The primer used shall be compatible with the finish coat in order to insure proper adhesion of the finish coat. The finish coat shall be first quality air drying paint. The minimum dry film thickness of the finish coat shall be 1 mil. The final color shall match the chassis manufacturers colors.

**5.2. Color, Major Components:** The body shall be painted the same color as the truck chassis cab except for rubber and those metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted.

**F.6 MANUAL(S):** Manual(s) shall be furnished which contain illustrated parts lists and operating and servicing instructions for the body and hoist. Manual(s) shall be delivered with each unit. The manual(s) shall be as detailed as possible, outlining all necessary servicing and operating instructions for each unit. Parts list(s) shall cover all components of the unit. Necessary warnings and safety precautions shall be included (See Sections A.4.5 and A.4.6.). The following information shall be provided by the vendor at the time of delivery, if it is not included in the above manual(s):

**6.1.** Manufacturer's recommended service/preventive maintenance intervals.

**6.2.** Recommended fluids, lubricants, and their SAE equivalents.

**6.3.** Installation instructions.

**6.4.** Hoist capacity information.

## **SECTION G - REQUIREMENTS FOR STATIONARY PLATFORM AND STAKE BODIES**

**(See Options 158-162, 167, 173-175, and 185):**

The following requirements cover the platform and stake type bodies. Each of these requirements apply to both types of bodies unless otherwise specified.

### **G.1 BODY DIMENSIONS:** The dimensions of the platform and stake bodies shall be as follows:

#### **1.1. LENGTH:**

- 1.1.1. Light-Duty Trucks:** Approximately 96 inches for Cab-to-Axle of 56 inches, and approximately 108 inches for Cab-to-Axle of 60 inches.
- 1.1.2. Medium-Duty Trucks:** Approximately 108 inches for Cab-to-Axle of 60 inches, approximately 120 inches for Cab-to-Axle of 72 inches, and approximately 144 inches for Cab-to-Axle of 84 inches.

#### **1.2. WIDTH:**

- 1.2.1. Light-Duty Trucks:** Minimum 80 inches or overall body width shall be sufficient to cover rear tires with not more than 2 inch overhang on each side.
- 1.2.2. Medium-Duty Trucks:** Minimum 90 inches or overall body width shall be sufficient to cover rear tires.

#### **1.3. HEIGHT, STAKE BODY:** The height of the stake body shall be measured from the rail to the top of the rack section and shall be as follows:

- 1.3.1. Light-Duty Trucks:** Minimum 26 inches.
- 1.3.2. Medium-Duty Trucks:** Maximum 40 inches.

### **G.2 CONSTRUCTION AND COMPONENT REQUIREMENTS:** These two bodies shall include, but not be limited to the following components:

#### **2.1. CROSS MEMBERS:** Cross members shall be spaced as uniformly as possible and shall be as follows:

- 2.1.1. Light-Duty Trucks:** Minimum of 5 cross members of minimum 4 inch, 11-gauge formed steel.
- 2.1.2. Medium-duty Trucks:** Minimum of 6 cross members of minimum 4 inch, 12-gauge formed steel channel.

#### **2.2. FLOORING:**

- 2.2.1. Steel Body:** Flooring shall be minimum 3/16 inch safety tread plate steel flooring.
- 2.2.2. Wood Body:** Flooring shall be minimum 1-1/2 inches finished thickness, kiln-dried, Wolmanized or Penta-treated lumber free from such defects as knots, knotholes, excessive warp, or edge splits. Each floor section shall be securely fastened to each cross member by recessed screws or bolts and installed flush with side rails.

#### **2.3. LONGITUDINAL SILLS:** A minimum of 2 are required on each body as follows:

- 2.3.1. Light-Duty Trucks:** Longitudinal sills of bodies shall be minimum 6 inch, 12-gauge formed steel channel or 5 inch, 6.7 pound-foot structural steel channel.
- 2.3.2. Medium-Duty Trucks:** Longitudinal sills of bodies shall be minimum 6 inch, 11-gauge formed steel channel of 5 inch, 6.7 pound-foot structural steel channel.

### **G.2 CONSTRUCTION AND COMPONENT REQUIREMENTS:**

- 2.4. PROTECTOR, CAB (Bulkhead Type):** Unless otherwise specified in the Invitation for Bid, each stationary platform body shall be equipped with a bulkhead type cab protector, in lieu of a front stake rack section. This protector shall be designed to prevent shifting of load and penetrating or crushing of the driver's compartment. It shall be constructed of minimum 11-gauge steel plate with a window to provide visibility. The window shall be made of minimum 11-gauge diamond-punched steel, or covered with minimum 9-gauge expanded metal diamond mesh. Cab protector dimensions shall be designed to

fit the truck cab and shall not interfere with the driver's rearward visibility.

Cab protector shall be mounted using knee-brace style reinforcements welded to the bottom of the outer body rail. Top-mounted angle gusset type mounting is not acceptable.

- 2.5. RAILS:** The floor edges shall be enclosed with rails installed on both ends and on both sides as follows:

**2.5.1. End Rails:**

**2.5.1.1. Light-Duty Truck Bodies:** Minimum 12-gauge formed steel channel.

**2.5.1.2. Medium-Duty Truck Bodies:** Minimum 11-gauge formed steel channel.

**2.5.2. Side Rails:**

**2.5.2.1. Light-Duty Truck Bodies:** Minimum 14-gauge formed steel channel.

**2.5.2.2. Medium-Duty Truck Bodies:** Minimum 11-gauge formed steel channel.

- 2.6. STAKE RACK SECTIONS:** Each stake body shall have stake rack sections with horizontal slats having a maximum 7 inch gap between them. Each stake rack section shall be equipped with the necessary hardware to lock each section to adjacent sections. The slats shall be constructed of either minimum 0.75 inch thick Wolmanized or Penta-treated lumber free of warps, splits, or knotholes; or they may be made from minimum 16-gauge or minimum 18-gauge corrugated steel with rounded corners and smooth edges unless a preference is specified on the Invitation for Bids (See Note at the end of Section G.). Each slat shall be securely fastened to 2 steel stakes. The number of slats per section and the number of stake rack sections per body for the two body sizes shall be as follows:

- 2.6.1. 108 inch Bodies:** 108 inch bodies shall have 2 sections on each side and 2 at the rear. The number of slats per section for the two materials shall be as follows:

**2.6.1.1. Lumber or 16-gauge Corrugated Steel:** Minimum 3 slats per section.

**2.6.1.2. 18-gauge Corrugated Steel:** Minimum 4 slats per section.

- 2.6.2. 144 inch Bodies:** 144 inch bodies shall have 3 sections on each side and 2 at the rear. The number of slats per section for the two materials shall be as follows:

**2.6.2.1. Lumber or 16-gauge Corrugated Steel:** Minimum 4 slats per section.

**2.6.2.2. 18-gauge Corrugated Steel:** Minimum 5 slats per section.

- 2.7. STAKE AND STAKE POCKETS:** Stakes shall be steel and shall be designed to fit snugly and rigidly inside the stake pockets. Readily accessible lock-down mechanisms are required. The number of stake pockets required for the rear and side rails of the two body lengths are as follows:

**2.7.1. 108 inch Bodies:**

**2.7.1.1. Rear Rail:** Minimum 4 stake pockets.

**2.7.1.2. Side Rails:** Minimum 4 stake pockets on each side.

**2.7.2. 144 inch Bodies:**

**2.7.2.1. Rear Rail:** Minimum 4 stake pockets.

**2.7.2.2. Side Rails:** Minimum 6 stake pockets on each side.

- G.3 INSTALLATION AND MOUNTING:** The installation and mounting shall be in accordance with the body and vehicle manufacturer's instructions except for the requirements in Paragraphs A.4.4. through A.4.9.

- 3.1. LAMPS, REFLECTORS, AND SIDE MARKER LAMPS:** Lamps, reflectors, and side marker lamps shall be furnished as required by Paragraphs A.4.8. and A.4.9., General Information and Requirements.

- 3.2.** Mud flaps shall be furnished as required by Section C.8.a.3.

#### **G.4 PAINTING:**

- 4.1. STATIONARY BODIES (including Stake Rack Sections):** Requirements for stationary bodies (including stake rack sections) are the same as those for dump bodies, Section F.5., except the color shall be the manufacturer's standard unless the Invitation for Bid specified another color.
- 4.2. PAINTING, TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT):** Complete units for TxDOT shall be painted as follows:
  - 4.2.1. Colors, Major Components:** The body shall be painted the same color as the truck chassis (cab) except for rubber and those metallic accessories or fixtures constructed of rust-resistant or plated material that are not normally painted. Lead-free paint is acceptable if it matches the color of the truck chassis (cab).

#### **NOTE TO ORDERING ENTITIES:**

ORDERING ENTITIES SHOULD TAKE SPECIAL NOTE THAT THIS SPECIFICATION REQUIRES WOLMANIZED OR PENTA-TREATED LUMBER OR CORRUGATED STEEL STAKE RACKS FOR STAKE BODIES AT THE OPTION OF THE MANUFACTURER.

REFER TO PARAGRAPH G.2.5., IF THE ORDERING ENTITY HAS A PREFERENCE FOR EITHER WOLMANIZED OR PENTA-TREATED LUMBER OR STEEL (OR HARDWOOD), THIS MUST BE STATED IN THE INVITATION FOR BID.

## **SECTION H - REQUIREMENTS FOR UTILITY BODIES (See Options 163 and 169):**

Utility bodies for light-duty trucks, Series 870, 875, 881, 886, and 888 (Option No. 163) and medium-duty trucks, Series 930 through 961 (Option No. 169), shall be general purpose type bodies which meet or exceed the following requirements:

- H.1 GENERAL REQUIREMENTS:** Each utility body shall be provided with the following, regardless of whether it is mounted on a light-duty or a medium-duty truck: Overall mounted height of the utility body shall provide the lowest profile possible. Body shall not extend more than 4 inches above the bottom of the vehicle's rear window.
- 1.1. BUMPER, REAR:** The rear bumper shall be made of heavy-duty safety tread plate steel with recessed type hitch plate for installation of a ball-type hitch.
  - 1.2. COMPARTMENT DOORS:** Each compartment shall have a door and the doors shall have automotive type neoprene weather stripping installed between the door and the compartment so as to make the compartment dust-proof and waterproof.
  - 1.3. HORIZONTAL STORAGE SPACE:** The horizontal storage space shall extend the full length of the utility body on both sides, but may be partitioned into several compartments either horizontally or vertically.
  - 1.4. LATCHES:** Each compartment door shall have a latch and handle. The handle shall be a lifetime guarantee stainless steel.
  - 1.5. LOCKS:** Compartments shall have locks on each door and every lock shall be keyed alike.
  - 1.6. MATERIAL, BODY:** Body shall be constructed of minimum 14-gauge automotive type cold-rolled or Galvan Neal steel. Compartment doors shall be constructed of minimum 16-gauge steel, where furnished as a single panel. Where doors are furnished in a double panel configuration, each panel shall be constructed of minimum 20-gauge steel.
  - 1.7. UNDERCOATING:** The entire exposed underside of the utility body shall be completely and thoroughly undercoated without skips, voids, or thin places with a high quality asphalt base underbody coating conforming to Federal Specification TT-C-520B, such as R-477-139 manufactured by Daubert Chemical Co., Chicago, Illinois 60638, or Lion Nokorode Emulsion 331 manufactured by Lion Oil Company, El Dorado, Arkansas 71730, or an Ordering Entity Approved Equal. The undercoating shall be applied in accordance with the undercoating manufacturer's instructions.
- H.2 OPTIONAL REQUIREMENTS:** When so specified in the Invitation for Bid, utility bodies shall be equipped with one or more of the following options:
- 2.1. TELESCOPING TOP WITH TAILGATE ENCLOSURE (OPTIONS 164 AND 170):** A minimum two-piece top shall be installed as near flush as practicable with the tops of the side compartments. The top shall be complete with a folding and locking tailgate enclosure and/or a heightened tailgate to form a secure and weather-tight storage compartment. The lock shall be keyed alike with compartment door locks. The rear half shall slide forward to provide access to the rear of the body floor.
  - 2.2. TOP OPENING SMALL PARTS TRAY (OPTIONS 165 AND 171):** The top of the body shall be hinged to provide access to a full length parts bin with dividers set on approximately 5 inch centers. Bin shall be provided on both compartment sides. Device(s) shall be provided to hold the lid in the open position.
  - 2.3. THROUGH-COMPARTMENT WITH REAR ACCESS DOOR (OPTIONS 166 AND 172):** A full width and length shelf shall extend through all compartments on the curb (passenger) side of the utility body. An access door with handle and lock keyed in common with those provided on the other compartments shall be provided at the rear of the body. The access door shall be aligned with the shelf.

**H.3 DIMENSIONS:** The approximate dimensions of these utility bodies shall be as follows:

**3.1. LIGHT-DUTY TRUCKS (Series 870, 875, 881, 886, and 888):**

<u>Parameter</u>	<u>Series Number</u>				
	<u>870</u>	<u>875</u>	<u>881</u>	<u>886</u>	<u>888</u>
Width, Cargo Body, inches	51	49-54	51	54	54
Length, inches	96	108	96	96	96
Compartment Depth, inches	14-1/2	20	14-1/2	20	20
Utility Body Height, inches	36	36	36	36	36
Utility Body Overall Width, inches	80	94	80	94	94

**NOTE:** WIDTH BETWEEN WHEEL WELLS OF PICKUP CAB AND CHASSIS UNITS (SERIES 881 AND 886) WITH DUAL REAR WHEELS IS APPROXIMATELY 42 INCHES.

**3.2. MEDIUM-DUTY TRUCKS (Series 930 through 961):**

<u>Cab-to-Axle Dimensions</u>	<u>60 inches</u>	<u>84 inches</u>
Width, Cargo Body, inches	49-54 *	49-54 *
Length, inches	108	132
Compartment Depth, inches	20	20
Utility Body Height, inches	36	36
Utility Body Overall Width, inches	89-94 *	89-94 *

\* Applicable for Series 930 only (See NOTE (following) referring to maximum overhang).

**NOTE:** BODY WIDTH SHALL BE SUFFICIENT TO ADEQUATELY COVER REAR TIRES WITH NO MORE THAN 2 INCH OVERHANG ON EACH SIDE. BODY SHALL BE PROPER SIZE FOR CHASSIS.

**H.4 PAINTING:**

**4.1. REQUIREMENTS:** Painting requirements for utility bodies are the same as those for dump bodies, Section F.5.

**4.2. Color, Major Components:** The utility body shall be painted the same color as the truck chassis (cab) except for rubber or those metallic accessories or fixtures constructed of rust-resistant or plated material that are not normally painted.



## **SECTION I – SPECIAL EQUIPMENT – WHEELCHAIR LIFT:**

### **1. GENERAL DESCRIPTION**

The purpose of these specifications is to describe the conversion of a full size van as manufactured by the vehicle OEM, equipped with a raised roof, wheelchair lift, provisions for stand-up entry and wheelchair passenger securement. Conversion must meet the requirements of the Americans with Disabilities Act, including but not limited to the provisions of the wheelchair lift, wheelchair entry and securement.

Unless otherwise specified, all units shall be furnished complete with standard equipment and factory-installed accessories as listed in the manufacturer's literature for the models specified herein. The following items are minimum requirements and shall be provided whether shown as optional or standard equipment by the manufacturer.

#### **1.1 All Standard and Common Features Shall be Furnished**

Standard and common features, some related to safety and others to driver and passenger convenience, which are generally provided in a paratransit vehicle without customer stipulation. Those features include but are not limited to: adjustable instrument lights, interior sun visors, exterior backup lamps, two-speed windshield wipers, windshield washers, windshield defroster, coolant recovery system, etc. Standard and other common features if not specifically stated shall not be interpreted as items that can be omitted to reduce price or to provide any other bidding advantage.

#### **1.2 Certification of ISO 9001:2000 Compliance**

The manufacturer of the vehicles shall have a proven, third-party certified quality control system in place and shall be ISO 9001:2000 certified at the facility that will produce the vehicles as bid. Written certification of ISO 9001:2000 compliance shall be included with the bid submission documents. A copy of the vehicle manufacturer's ISO-approved Quality Assurance Manual shall also be submitted with the Proposer's bid package.

#### **1.3 All Standard and Common Features Shall be Furnished**

Standard and common features, some related to safety and others to driver and passenger convenience, which are generally provided in a paratransit vehicle without customer stipulation. Those features include but are not limited to: adjustable instrument lights, interior sun visors, exterior backup lamps, two-speed windshield wipers, windshield washers, windshield defroster, coolant recovery system, etc. Standard and other common features if not specifically stated shall not be interpreted as items that can be omitted to reduce price or to provide any other bidding advantage.

#### **1.4 Bidder's Experience:** The bidder shall have operated as a Texas licensed bus dealer, having distributed commercial buses and maintained a repair facility and parts distribution center for a minimum of 5 years prior to the date of bid.

### **2. GENERAL DIMENSIONS**

Wheelbase.....	138" min.
Interior height from floor to ceiling.....	72" min.
Interior height from floor to ceiling at aisle.....	75" min.
Height at first step.....	12" max.
Height at passenger door entrance.....	78" min.
Aisle width.....	14" min.
Interior width at floor level.....	76" min.
Gross Vehicle Weight Rating.....	9,250 lbs. min.

### **3. BUMPERS**

Chassis manufacturer's standard front chrome bumper and vehicle manufactured standard rear bumper. Rear bumper to be of sufficient strength to allow the vehicle to be pushed without damage.

### **4. ELECTRICAL**

- 4.1 A minimum of 200 ampere alternators shall be provided.
- 4.2 Chassis manufacturer supplied batteries shall be mounted on a stainless steel roller mounted pull out tray with battery hold down secured with bolts. Inside of compartment should be covered with a durable insulating material to prevent shorts. Battery compartment should be vented and the battery shall be easily serviceable without removal from battery tray.
- 4.3 All wiring other than that provided with the OEM chassis shall be number and function coded every 6 inches and shall be color coded. The body manufacturer shall furnish a complete wiring diagram with integrated body and chassis marked to show the codes used.
- 4.4 Fast idle solenoid with manual switch, volt sensor and light shall be installed. Solenoid is to automatically shut off when transmission is in gear or brake is applied.

### **5. LIGHTING**

- 5.1 Overhead entrance and stepwell lights shall provide no less than five foot-candles of illumination on the entrance step area with the door open. This system shall be illuminated automatically when the door is open. Overhead and stepwell lights shall be wired to and activated automatically by door control and by a separate dash mounted switch.
- 5.2 All exterior lights, with the exception of headlights, passenger entry door, lift door, curb light, and rear back-up lights shall be Light Emitting Diode (LED) lights. Lighting shall be in accordance with Federal Motor Carrier Safety Regulations 393.12. All lights shall have wire long enough to move the light at least six inches (6") from vehicle for service. Lights shall be grounded to body framing structure. All lights shall be sealed from moisture. Marker lights shall be armored, surface mounted. Center brake light shall be furnished.

### **6. AIR CONDITIONING**

#### **6.1 Air Conditioning Performance Specifications**

The installed air conditioning system shall cool the interior of the vehicle to 80°F measured at a minimum of three points, located four feet above the floor at the longitudinal centerline of the vehicle. The three points shall be (1) near the driver's location; (2) at the mid-point of the body; and (3) two feet forward of the rear of the vehicle

#### **6.2 Compressors**

A chassis OEM supplied compressor and an engine mounted TM-16 compressor each rated @ 52,000-btu/hr (imaca) shall be provided. Each unit shall have a nominal ten (10) cubic-inch displacement, and is to be belt driven off of the vehicle's engine. The compressors are to be equipped with an electro-magnetic clutch controlling each of the system's (2) thermostats.

#### **6.3 Condenser**

Condenser shall be a under floor skirt mounted unit rated @ 76,000 btu/hr (imaca). This unit shall be capable of producing a total of 2,400 cfm of airflow (rated @ 13.5vdc / 0" static). This unit shall contain three (3) single speed permanent magnet four pole, four brush 10,000 hour design life sealed ball bearing motors. This unit's maximum amperage draw shall be 21 amps @ 13.5vdc.

The unit's refrigerant connections shall be of a corrosion resistant brass, and shall be of the o-ring type to insure leak-free continuous operation. The unit's filter drier shall be a minimum sixteen (16) cubic inches of desiccant compatible with R-134A; equipped with o-ring connections to insure leak-free connections, and capable of maintaining a dry, non-acidic system.

#### 6.4 Evaporators

Evaporators shall be a chassis OEM supplied 15,000 btu/hr drivers in dash air conditioning unit and a rear center ceiling mounted unit rated @ 52,000 btu/hr (imaca). This rear unit shall be capable of producing 1,600 cfm of airflow on high speed (rated @ 13.5vdc/0" static). This unit shall contain two (2) three speed permanent magnet 10,000 hour design life sealed ball bearing motors. This unit's maximum amperage draw shall be 36 amps @ 13.5 vdc. The unit shall be equipped with an easily removable, cleanable filter element capable of filtering air to 10,000 ppm. The unit's expansion valve shall be equipped with o-ring fittings to insure leak-free continuous operation.

#### 6.5 Controls

The vehicle's air conditioning system shall be controlled from the driver's seated position. The controls shall consist of (2) rotary fan speed switch (off/high/medium/low), and (2) rotary or slide type thermostat switches.

### 7. HEATING AND DEFROSTING

A rear hot water heater with blower fan shall have a BTU rating of at least thirty thousand (30,000) shall be installed under a seat near the rear of the vehicle. The controls shall be readily accessible to the driver. Heater hose connections shall be installed above the floor of the vehicle body and through: the fire wall to the engine compartment. **Easily accessible** all brass gate valve(s) shall be furnished to cut off the flow of coolant water to the rear heater.

### 8. SAFETY EQUIPMENT

- 8.1 First Aid Kit; Will be the standard State of Texas School Bus First Aid Kit. Kit shall be securely mounted near the driver's seat.
- 8.2 Fire Extinguisher; One 5-pound dry type (BC rated), securely mounted near the driver's seat.
- 8.3 Reflectors; Three folding triangle reflectors with storage container(s).
- 8.4 Back up Alarm; Meeting the requirements of SAE J994B or the latest revision thereto.
- 8.5 Fresnel Lens; provided on the rear window of the vehicle.

### 9. MIRRORS

- 9.1 Exterior; Rearview mirror, manufacturer's exterior low mount type with extension arms (below eye level) wide view type mirror. Mirror shall be a minimum of 6 inches by 9 inches. Additionally minimum 5-inch convex mirrors to be mounted with brackets on top of the main mirrors on the left and right sides.
- 9.2 Interior; Day/night type, conforming to FMVSS No. 111 and affording a good view of the road to the rear as well as the passenger area. The mirror(s) shall be made of safety glass, having rounded corners and protective edges. If more than one interior mirror is installed, at least one of the mirrors shall have a minimum of 90 square inch of clear vision, reflective surface area.
- 9.3 Passenger Mirror; an additional minimum 6-inch by 10-inch interior mirror shall be furnished for the driver to view the passengers.

**10. WINDOWS**

Side windows to be provided the full length of the vehicle. If the windows are transit type T-slider windows they shall be equipped with emergency release latches to provide emergency exits. Release instructions shall be provided at or near the release handles and an audible alarm shall be activated when any handle is released. Side windows, rear window(s) and glass in passenger entrance door shall be of uniform dark tint sufficient to permit no more than 31% light transmission. Tinted film is not acceptable.

**11. PASSENGER SEATS**

All frames shall be high quality heavy duty tube; jig welded, and utilize a heavy duty wire mesh grid for seat support. The back rest shall have steel straps for back support. Standard seat cushion width shall be 17 1/2" (single) or 35" (double). Back cushion height shall be 22 1/2" from the top of the seat cushion and 36 13/16" from the top of the back cushion to the floor. Cushions shall be molded polyurethane to ensure maximum individual passenger comfort and durability. All seats shall provide lower lumbar and side bolster support. Upholstery shall be level 1 material and select by the agency. Seats shall be recessed track mounted with pedestal support legs and hardware. Seat tracks shall be welded to the body structure and shall not rely on screws alone. Floor anchorage shall be neat and of a non-tripable design. Seating and securement shall meet or exceed every applicable Federal Motor Vehicle Safety Standard.

- 11.1 Seat backs shall be high impact ABS material which is recessed to provide one and one half inches (1-1/2") of additional passenger hip to knee room.
- 11.2 A retractable seatbelt shall be provided for each seated passenger. The retractor shall be emergency locking with anti-cinch capability. The retractor must be attached to the seat structure. Passenger Seatbelts shall be "A" type one seat belt assembly conforming to current FMVSS 209 requirements.
- 11.3 Aisle seats shall include an energy absorbent grab bar three quarter inch (3/4"), twenty (20) gauge steel covered with custom molded, wear and vandal resistant eight (8) pound density, self-skinning polyurethane foam. Grab bar shall be located in the top of the seatback.

**12. BODY CONSTRUCTION**

Sides and roof shall be constructed of metal or fiberglass panels. Roof shall be of sufficient height to provide at least 75 inches headroom at the center aisle. Headroom may be reduced slightly in some areas of the vehicle to accommodate other specified equipment such as air conditioner components and the normal contour of the roof. The structure shall be watertight and shall meet the requirements of Federal Safety Standards as to school bus rollover protection, No. 220.

**13. ROOF LINER**

The roof liner shall be of molded fiberglass installed the full length so as to cover all protrusions.

**14. PASSENGER ENTRANCE DOOR AND STEPS**

Passenger entrance door shall be a transit type, and shall have a minimum horizontal opening of approximately 24 inches and a minimum vertical opening of approximately 78 inches. The door shall be operated from controls at or near the vehicle driver's seated position. The door shall be manually operated, and shall be designed to allow manual opening in case of an emergency. The steps shall be designed so that the top of the first step is no more than 12 inches above the ground with the vehicle unloaded. Steps of at least 24 inches in width, approximately eight (8) inches deep and a maximum riser of 10-1/2 inches shall be fabricated and installed inside of the body to meet this requirement. The surface of all entrance steps shall have a non-skid material applied. A two inch white safety nosing shall be placed on each step edge.

## **15. STANCHIONS, GRAB RAILS, AND MODESTY PANELS**

Vertical stanchions shall be provided at the aisle immediately behind the driver's seat and the stepwell; a horizontal grab rail shall extend from the wall to each stanchion. A modesty panel shall be attached to the stanchion behind the stepwell.

- 15.1 A smoked three eighths inch (3/8") thick panel Plexiglas panel shall be provided behind the driver's seat. Panels shall extend from the top of the horizontal grab rail to the ceiling and shall extend from the wall to the vertical stanchion. Stanchion and panel shall not impair driver's seat adjustment
- 15.2 An overhead handrail shall be installed in the roof of the vehicle on the driver and curb side and shall run the length of the seating area.

## **16. WHEELCHAIR LIFT DOOR**

Side opening double outward opening doors shall be provided for the platform type wheelchair lift. Lift shall be mounted within the vehicle body on the curb side. The wheelchair doorframe structure shall consist of a minimum 12-gauge steel Door panel hinges shall be piano type with a minimum three sixteenth (3/16") inch diameter pivot pin. Each door panel shall have its own key lockable latch assembly which shall consist of a pistol grip style twist handle located at the inside center of the door panel. Door panel holders shall be gas shock type mounted at the top and shall allow door panels to open a minimum of one hundred degrees (100°) from the closed position. Wheelchair door clear opening dimensions shall be a minimum of forty (40") inches by sixty seven (67") inches. Lift doors shall be interlocked by a panel door switch controlling the transmission which requires the transmission to be in the "Park" position before lift can be operated. Door windows shall be installed with two (2) piece black ozone treated extruded rubber, lock and key of one (1) piece fixed design.

## **17. WHEELCHAIR LIFT**

- 17.1 The wheelchair lift shall comply with all Federal ADA requirements.
- 17.2 The wheelchair lift shall be a fully automatic, including folding of platform and be electro-hydraulically powered with a minimum test-net load capacity of eight hundred (800) pounds. The lift shall be totally self-contained and installed without modifications to the vehicle body or frame inside of the curbside double service doors. The entire assembly shall be installed with adequate protection to prevent accidental injury to passengers.
- 17.3 The complete wheelchair lift assembly shall operate from the vehicle's electrical system, and shall have one hand-held lift control station with a minimum five foot (5') cable attached so lift may be operated from inside or outside of vehicle.

## **18. WHEELCHAIR SECUREMENT AND SEATBELTS**

- 18.1 The vehicle shall have forward facing wheelchair positions. Each wheelchair position shall be provided with restraint devices that will secure the wheelchair and its passenger while in the wheelchair. These devices shall be adjustable to accommodate varying track widths of wheelchairs. Each wheelchair shall have a four (4) point securement (2 front, 2 back) in the vehicle with recessed anchor points of sufficient strength to secure a wheelchair and/or three wheel scooter. The entire securement system shall comply with all applicable regulations including ADA.
- 18.2 Floor mounted tracks shall be a series type "L" track floor plate. These plates shall be recessed mounted in the floor with three-eighths inch (3/8") diameter, SAE Grade 5 bolts, washers and self-locking nuts with National Fine Threads.
- 18.3 There shall be four (4) retractors assemblies for each wheelchair position in the vehicle to secure the wheelchair to the tracks. Example: Q' Straint QRT Deluxe (Q-8100-A1) System, or approved equal. Each retractor assembly shall consist of a heavy duty series "L" track fitting, the front left and right retractor shall be equipped with manual tension knobs for

manual tightening and/or release. Each retractor assembly shall be equipped with a quick release, push-button buckle and buckle connector.

- 18.4 Two (2) seat belts shall be provided for each wheelchair passenger. The torso belts shall be two inches (2") wide, seventy-two inches (72") long, adjustable, with a strength rating of not less than three thousand pounds (3,000 lbs.). One end of the belt shall be secured to a female seat belt fitting and the other end shall have a male seat belt fitting. The seat belt assembly shall provide for a quick-release and also provide for a snap locking to connect both ends together.
- 18.5 A wall mounted height adjustable of approximately twelve inches (12") shoulder harness system shall be provided at each wheelchair securement location that is compatible with the specified restraints. The harness system shall be installed in accordance with all structural requirements established by the restraint supplier and all applicable regulations, including 49 CFR part 571.
- 18.6 All belts, straps, and harness assemblies in bundled sets and shall include a container in which to store them. Storage compartments shall be provided over the windshield and over the driver's door.

**19. EMERGENCY EXIT**

A combination roof ventilator and emergency escape hatch shall be provided towards the rear of the vehicle. A rear duty emergency door shall be provided at the rear of the vehicle.

**20. FLOOR AND FLOOR COVERING**

The vehicle floor assembly shall be a minimum five eighths of an inch (5/8"), seven (7) ply, exterior grade plywood which is pattern cut, edge sealed, and attached with quarter inch (1/4") diameter counter sunk Tek screws. The floor in the under-seat area shall be covered with smooth gray rubber floor covering having a minimum thickness of .125 inch (1/8"). Floor covering in aisle and on steps shall be non-skid, wear-resistant, and ribbed. Minimum overall thickness shall be .1875 inch (3/16") measured from top of ribs.

**21. PAINTING**

Exterior surfaces normally painted shall be thoroughly degreased, primed, and painted solid white. The base vehicle shall be Bright White in color. The area around the passenger windows shall be black.

**22. DELIVERY**

All vehicles must be serviced prior to delivery in accordance with the manufacturer's "New Vehicle Predelivery Service" requirements and with Part II, Paragraphs 3.3 and 3.4 of this specification.

**23. REGISTRATION**

Successful bidder shall provide necessary documents to enable the purchasing agency to register the vehicle in the State of Texas. Necessary fees and state taxes will be paid by the purchasing agency; do not include such fees and taxes in your bid price.

**24. MANUALS**

A line setting sheet and manual(s) containing operating and servicing instructions for the vehicle shall be provided with each unit. The manual(s) shall be as detailed as possible outlining all necessary operating and servicing instructions for each vehicle including the vehicle's driveline components. Necessary warnings and safety precautions shall be included. In addition, manual(s) containing illustrated parts lists, operating and servicing instructions for related and special equipment supplied with the vehicle shall be provided with the unit.

**25. WARRANTY**

The vehicle shall be warranted against defects in material and workmanship for a period of not less than 12 months or 12,000 miles, whichever comes first and shall cover 100 percent parts and labor for the unit. If the manufacturer's standard warranty exceeds 12 months then the standard warranty period shall be in effect. Successful bidder shall furnish manufacturer's warranty to the receiving agency at time of delivery. The vendor is ultimately responsible for the warranty. EXCLUSIONS: The using agency will assume the expense for replacement filters, fuel, cleaning, painting and other minor items normally consumed in day to day operations. The using agency will assume responsibility for cost of repairs resulting from collision, theft, vandalism, operator negligence and/or acts of God.

**26. PARTS AND SERVICE**

The manufacturer of the vehicle furnished shall have an ***authorized dealer within the State of Texas***. The authorized dealer shall have factory-trained personnel available for warranty repairs and the performance of service. The dealer shall also maintain an inventory of high-usage parts and a quick source for low-usage parts.

**27. SAFETY DECAL(S)**

Safety decal(s) shall be furnished and shall be affixed at any applicable area (emergency exit, steps, etc.). The decals shall include necessary warnings and precautions. Permanent decals (plaques) are preferred.

**28. INSTRUCTION ON SAFETY, OPERATION AND PREVENTIVE MAINTENANCE**

The successful bidder shall provide the agency sufficient instruction on safety, operation and preventive maintenance of the vehicle after the unit has been delivered and is ready for operation but prior to payment.

## SECTION K – PRE-ACCEPTANCE CHECKLISTS FOR NEW VEHICLES:

Item No.	General Information & Requirements	Yes	No	Discrepancies From Specification
1.	<b>Battery</b> – Calcium hybrid type standard; permanently sealed batteries without antimony are acceptable. (See Para A.4.2,pg 4)			
2.	<b>Safety Plaques or Decals</b> are furnished and affixed at any hazardous area; describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. (See Para. A.4.6, pg 4)			
3.	<b>License Plate Attachment</b> furnished with means and adequate space for attaching the rear license plate without modification; illumination for the license plate provided to meet DPS requirements. (See Para. A.4.10, pg5)			
4.	<b>Manuals</b> – owner’s or operator’s; including all standard manufacturer literature normally furnished/required by law with the purchase of a new vehicle. (See Para.A.4.12, pg 5)			
5.	<b>Odometer Statement</b> complete, includes mileage accrued at the point of delivery, signature of seller certifying the odometer reading, both the dealership and name of agent is printed. (See Para.A4.15, pg 5)			
6.	<b>Servicing and Equipping</b> – completely assembled, serviced, adjusted, and all equipment including standard and optional equipment is installed and units made ready for continuous operation. (See Para. A.4.16, pg 5)			
7.	<b>Wiring</b> is insulated and enclosed in a fibrous loom, plastic loom, or flexible conduit for protection from external damage and short circuits; securely fastened at sufficient intervals to prevent sagging and to ensure clearance of mechanical parts; rubber grommets used whenever wires, hoses or harness pass through metal. (See Para.A.44.19, pg. 6)			
8.	<b>Vehicle Inspection</b> to meet DPS requirements with Texas Inspection Sticker attached. (See Para. A.6.1, pg.8)			
9.	<b>Manufacturer’s Statement of Origin (MSO)</b> furnished at time of delivery and is made out to agency/coop. Includes GVWR, Nominal Weight Rating (in tons), and Odometer Disclosure Statement. (See Para. A.8, pg. 9)			
10.	<b>Pre-Delivery Service</b> (all fluid levels checked/maintained with the proper grade and type of fluids, pre-delivery inspection and service on chassis, and interior/exterior cleaned and washed) preformed prior to delivery. (See Para. A.9, pg. 10)			
	<b>Standard Equipment</b>	<b>Yes</b>	<b>No</b>	<b>Discrepancies From Specifications</b>
11.	<b>Air Bags</b> driver’s side; dual (Refer to Specification)			
12.	<b>Air conditioning</b> – manufacturer’s standard.			
13.	<b>Arm Rests, Door Mounted</b> – both right and left required.			



14.	<b>AM/FM Radio</b> – manufacturer’s standard.			
15.	<b>Automatic transmission.</b>			
16.	<b>Auxiliary Power Outlet</b> – 12 volt			
17.	<b>Brakes, ABS, Required</b> – manufacturer’s standard; front disc, 2 or 4 wheel.			
18.	<b>Bumpers</b> – manufacturer’s standard front and rear.			
19.	<b>Ground Ratings</b> – As required for the GVWR certified.			
20.	<b>Heater and Defroster</b>			
21.	<b>Jack, Handle, and Lug Wrench.</b>			
22.	<b>Power Steering.</b>			
23.	<b>Rearview Mirrors, Exterior</b>			
24.	<b>Seat Belts</b> – installed for each passenger seat.			
25.	<b>Spare Wheel and Tire</b> – manufacturer’s standard.			
26.	<b>Sun Visors</b>			
27.	<b>Tinted Glass</b>			
28.	<b>Tires</b> – steel belted radial type tubeless.			
29.	<b>Windshield Wipers</b> – dual electric 2-speed type with intermittent feature windshield washers.			
30.	<b>Minimum Requirements</b> – Refer to Specification <ul style="list-style-type: none"> <li>• Wheelbase</li> <li>• Length, Overall</li> <li>• Approx. Payload Allowance</li> <li>• GVWR</li> <li>• Displacement, Engine</li> <li>• Engine Net HP</li> <li>• Engine Torque</li> <li>• Transmission; Automatic</li> <li>• Tire Size and Load Range</li> <li>• Rim Size</li> </ul>			
31.	<b>Optional Equipment</b> – Refer to Purchase Order			

#### **SECTION K - AVAILABILITY OF SPECIFICATIONS:**

This specification is available through the Agency's web site.

[http://www.CPA.state.tx.us/spec\\_lib/numeric.html](http://www.CPA.state.tx.us/spec_lib/numeric.html)

Procurement Division - Specifications  
Comptroller of Public Accounts  
P. O. Box 13047  
Austin, TX 78711-3047  
(512) 463-2469